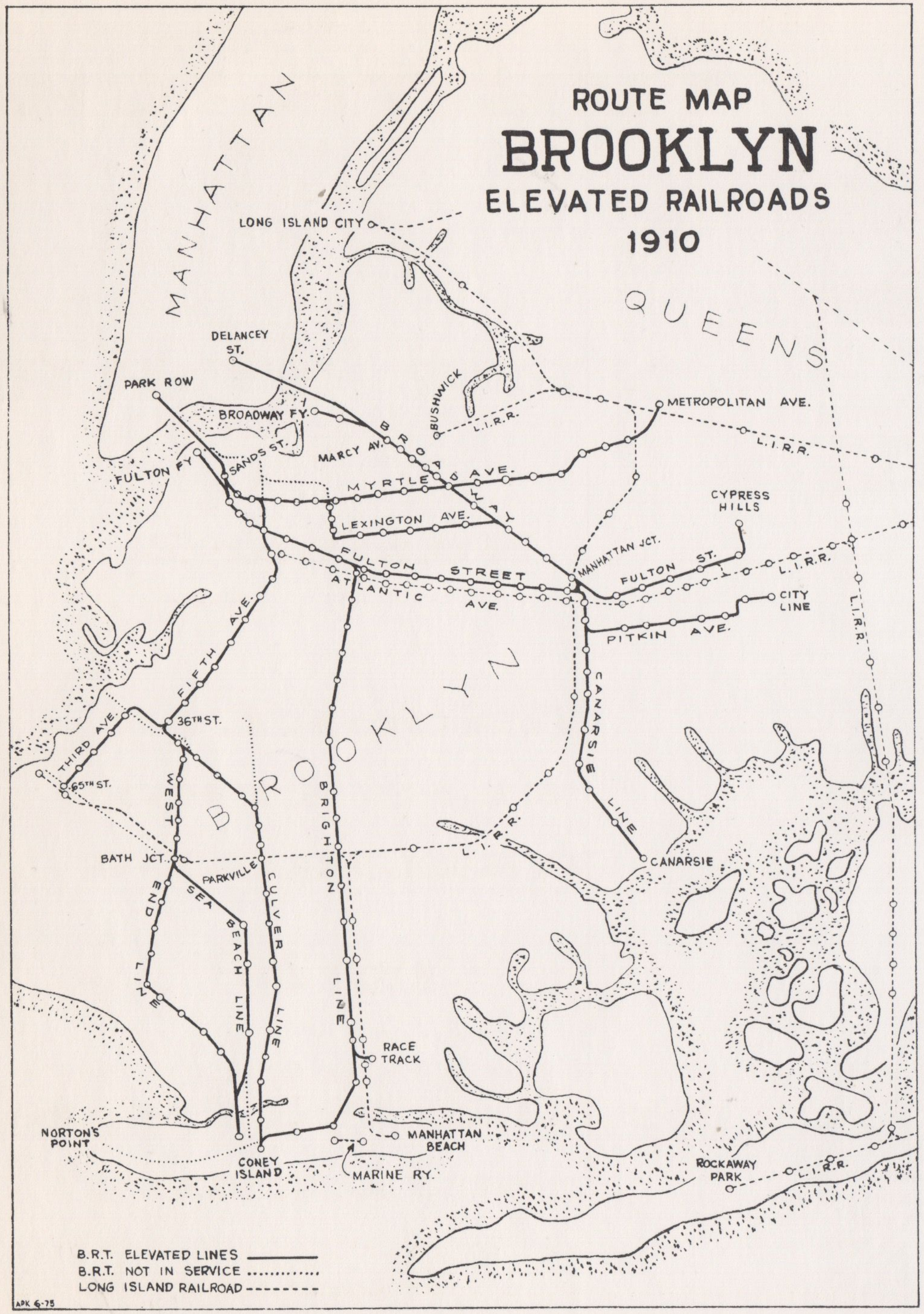
THE TRACKS OF NEW YORK

Number 2

BROOKLYN ELEVATED RAILROADS

-1910-

by Alan Paul Kahn
and Jack May



ROUTE MAP
BROOKLYN
ELEVATED RAILROADS
1910

SERVICE INFORMATION
BROOKLYN ELEVATED RAILROADS

ROUTE REF. NO.	ROUTE NAME	TERMINAL	TERMINAL	Ⓐ
1	BRIGHTON BEACH LINE	CONEY ISLAND SHEEPSHEAD BAY RACE TRACK Ⓑ	PARK ROW	90
2	BROADWAY LINE	CYPRESS HILLS GATES AVE. Ⓒ	DELANCEY ST.	17
3	BROADWAY FERRY SHUTTLE	MARCY AVE.	BROADWAY FERRY	2
4	CANARSIE LINE	CANARSIE	DELANCEY ST.	116
5	CULVER LINE	CONEY ISLAND	PARK ROW	55
6	FIFTH AVE. LINE	65TH STREET	PARK ROW	70
7	FULTON ST. LINE	GRANT AVE.	PARK ROW FULTON FERRY	150
8	LEXINGTON AVE. LINE	CYPRESS HILLS	PARK ROW SANDS ST.	136
9	MYRTLE AVE. LINE	METROPOLITAN AVE.	PARK ROW SANDS ST.	101
10	ROCKAWAY BEACH LINE Ⓓ	ROCKAWAY BEACH	DELANCEY ST.	19
11	SEA BEACH LINE Ⓔ	CONEY ISLAND	PARK ROW	17
12	WEST END LINE	CONEY ISLAND	PARK ROW	83

Ⓐ NUMBERS IN COLUMN INDICATE AVERAGE NUMBER OF CARS PER DAY.

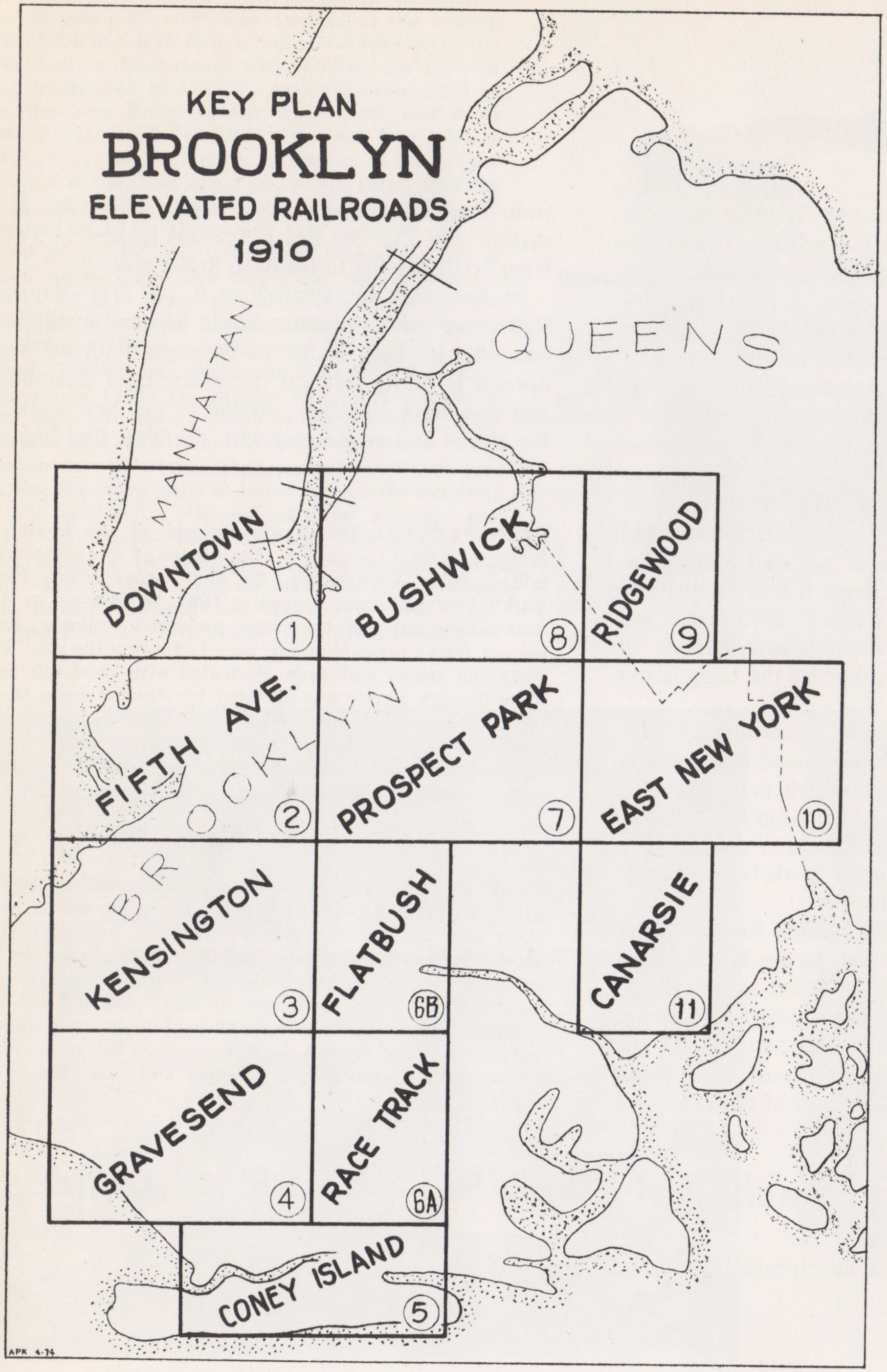
Ⓑ OPERATED DURING RACING SEASON ONLY.

Ⓒ ADDITIONAL SERVICE RUSH HOURS ONLY.

Ⓓ OPERATED SUMMER MONTHS ONLY. ALTERNATE TRAINS OPERATED BY B.R.T. AND L.I.R.R.

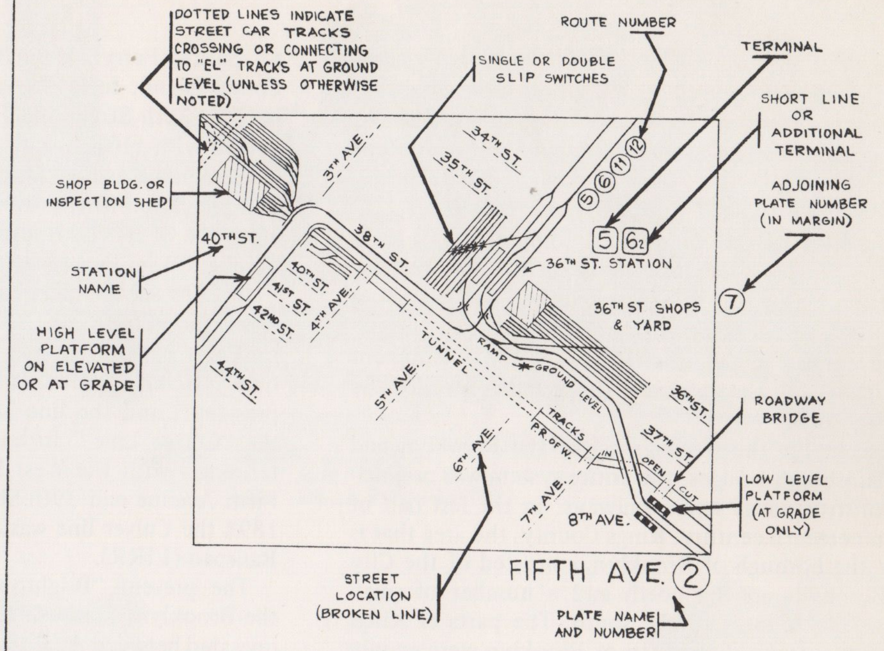
Ⓔ SEA BEACH CARS COUPLED TO END OF OTHER TRAINS AS FOLLOWS:
1) TO FIFTH AVE. TRAINS, MIDNIGHT TO 6:00 AM.
2) TO WEST END TRAINS, 6:00 AM TO 8:00 PM.
3) TO CULVER TRAINS, 8:00 PM TO MIDNIGHT.

Nora L. Mandel
67-72 St.
Forest Hills, N.Y. 11375



KEY PLAN
BROOKLYN
ELEVATED RAILROADS
1910

LEGEND



DOTTED LINES INDICATE STREET CAR TRACKS CROSSING OR CONNECTING TO "EL" TRACKS AT GROUND LEVEL (UNLESS OTHERWISE NOTED)
SHOP BLDG. OR INSPECTION SHED
STATION NAME
HIGH LEVEL PLATFORM ON ELEVATED OR AT GRADE
SINGLE OR DOUBLE SLIP SWITCHES
ROUTE NUMBER
TERMINAL
SHORT LINE OR ADDITIONAL TERMINAL
ADJOINING PLATE NUMBER (IN MARGIN)
ROADWAY BRIDGE
LOW LEVEL PLATFORM (AT GRADE ONLY)
STREET LOCATION (BROKEN LINE)
PLATE NAME AND NUMBER
3RD AVE.
34TH ST.
35TH ST.
⑤ ⑥ ⑪ ⑫
5 62
40TH ST.
38TH ST.
36TH ST. STATION
36TH ST SHOPS & YARD
⑦
40TH ST.
41ST ST.
42ND ST.
4TH AVE.
44TH ST.
TUNNEL
RAMP
GROUND LEVEL
5TH AVE.
TRACKS IN
P.R. OF W.
OPEN CUT
36TH ST.
37TH ST.
6TH AVE.
7TH AVE.
8TH AVE.
FIFTH AVE. ②

INDEX OF LARGE SCALE PLANS

	PAGE NO.
ALABAMA AVE. YARD	33
BRIGHTON BEACH	21
CANARSIE TERMINAL	29
CONEY ISLAND	23
EAST NEW YORK YARD (MANHATTAN JUNCTION)	35
LUTHERAN YARD (FRESH POND)	31
PARK ROW TERMINAL	7
PROSPECT PARK (BRIGHTON LINE)	27
SANDS STREET TERMINAL	9
36TH STREET YARDS	13
38TH STREET YARD	15

DRAWN BY: ALAN PAUL KAHN - APR. 1974

In 1910 the principal forms of public transportation in the borough of Brooklyn were elevated railroads and streetcar lines. In many areas elevated trains and streetcars shared common track, stations and other facilities as most lines were controlled by the Brooklyn Rapid Transit Company (BRT).

The BRT was not an operator, only a holding company organized to acquire the securities of other corporations. One of these companies, the Brooklyn Union Elevated Railroad Company, operated the elevated trains, and another, the Transit Development Company, ran the yards and shops and controlled the rolling stock.

Except for the trackage across the Brooklyn and Williamsburgh bridges, the entire system was originally constructed as steam railways. In the last half of the nineteenth century, Kings County, the area that is now the borough of Brooklyn, consisted of the City of Brooklyn on the north and a number of small towns and villages to the south. The parts of Kings County outside of the City of Brooklyn were mainly farms and seashore resorts. Coney Island was the best known resort and four steam railroads were built to bring tourists and vacationers from New York and Brooklyn to the seashore.

The first of the steam lines was the Brooklyn, Bath and Coney Island which opened in 1864 and reached Coney Island in 1867. Reorganized in 1885 as the Brooklyn, Bath and West End Railroad, it ran from 27th Street and Fifth Avenue, where it connected with Brooklyn horsecars, and from 39th Street and Second Avenue, where it connected with ferry boats to South Ferry, Manhattan, to Tivoli's Hotel in Coney Island. In later years it ran from "Union Depot" at 36th Street and Fifth Avenue, where it connected with Fifth Avenue el trains. At different times it was known as the "Dummy Road," after the steam dummies used for motive power, "Gunther's Road," after one of its early developers, and finally, the now familiar "West End Line."

In 1875 the Prospect Park & Coney Island Railroad was constructed from 20th Street and Ninth Avenue to Cable's Hotel in the West Brighton section of Coney Island. Andrew R. Culver was its founder and president, and the line became popularly known as the "Culver Line." In later years it shared northern terminals with the West End line at 36th Street and Fifth Avenue and 39th Street and Second Avenue. In 1893 the Culver line was acquired by the Long Island Railroad (LIRR).

The present "Brighton Line" opened in 1878 as the Brooklyn, Flatbush & Coney Island Railroad and operated between Atlantic Avenue, where it connected with the LIRR, and the Hotel Brighton in Coney Island. Later reorganized as the Brooklyn and Brighton Beach Railroad, it was extended north from Atlantic Avenue to Fulton Street in 1896.

Lastly, the New York & Sea Beach Railroad commenced service in 1879 between the Sea Beach Palace Hotel in Coney Island and 65th Street in Bay Ridge, where it connected with steamboats to South Ferry. All of these lines operated at grade, except for the section of the Brighton line north of Park Place, which was elevated, and the section of the same line from Park Place to Church Avenue, which was in a shallow cut. The Sea Beach line was located in a cut from Sixth Avenue to the 65th Street pier.

In discussing the steam lines to the Brooklyn seashore, two other railroads should be mentioned. The New York, Bay Ridge & Jamaica Railroad was opened in 1876 between the 65th Street steamboat pier and Bath Junction, parallel to the New York & Sea Beach and connecting with the West End line to

(continued on page 4)

FRONT COVER: The Manhattan end of the Brooklyn Bridge in 1902. Designed by the master of the suspension bridge, John A. Roebling, the first bridge across New York's East River was opened in 1883. In addition to the dual carriageway and the center pedestrian walkway, two railway tracks for cable trains were laid across the span. By 1902 the tracks had been electrified with third rail and some through service was operated by elevated trains from the outer reaches of Brooklyn. This photo, however, shows two cable-operated bridge locals. The white disk on the dashboard indicates which of the gauntlet tracks the Park Row-bound train was operating on–white for south and red for north. *New York Historical Society*

REAR COVER: The Brooklyn end of the Williamsburgh Bridge in 1910. Rapid transit service across the second East River span was not inaugurated until 1908, five years after the bridge was constructed. Until then all Broadway elevated trains terminated at Broadway Ferry. By 1910 the "straight" track was relegated to shuttle service and all mainline trains took the curve, like the four-car train shown in the photo, and crossed the Williamsburgh Bridge to reach an underground terminal at Delancey and Essex Streets in Manhattan. *Brooklyn Public Library*

Technical Consultant: Hugh A. Dunne

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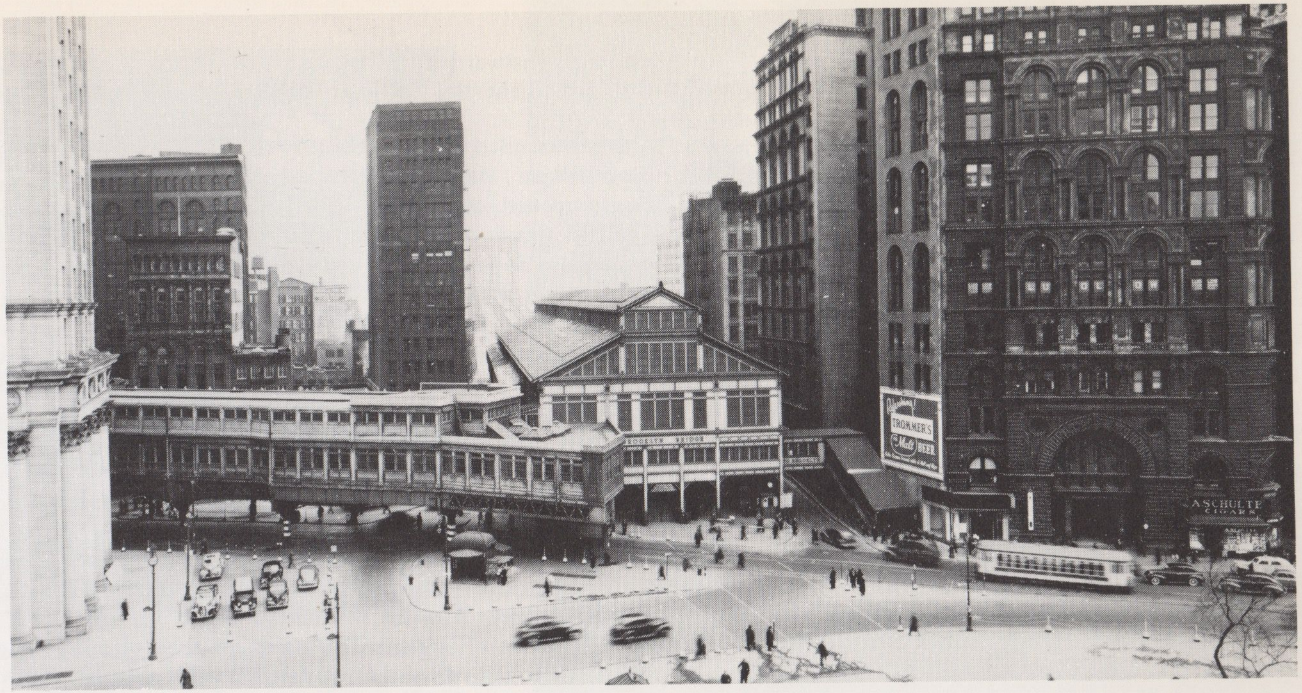
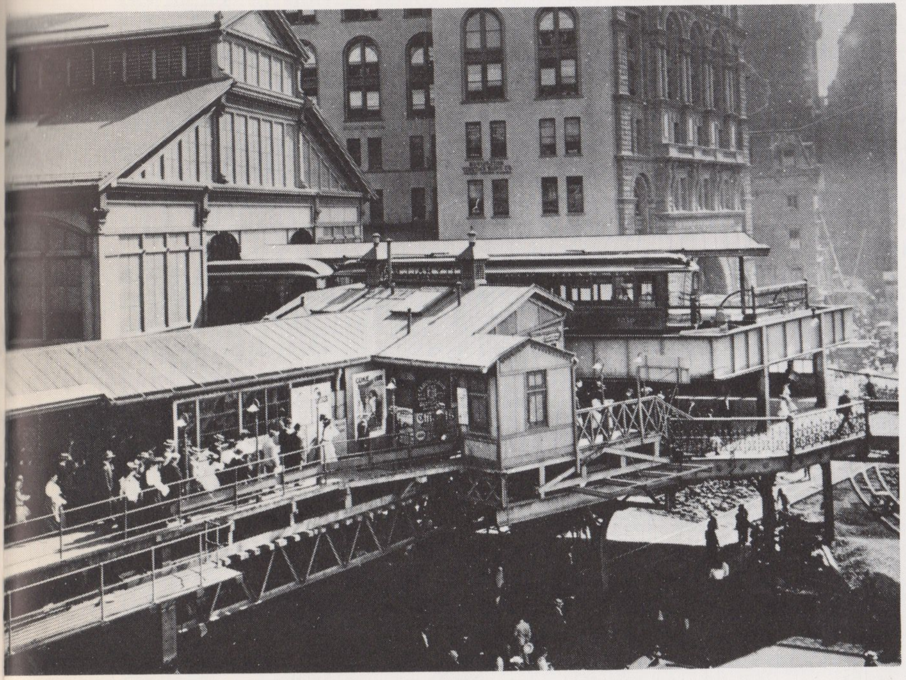
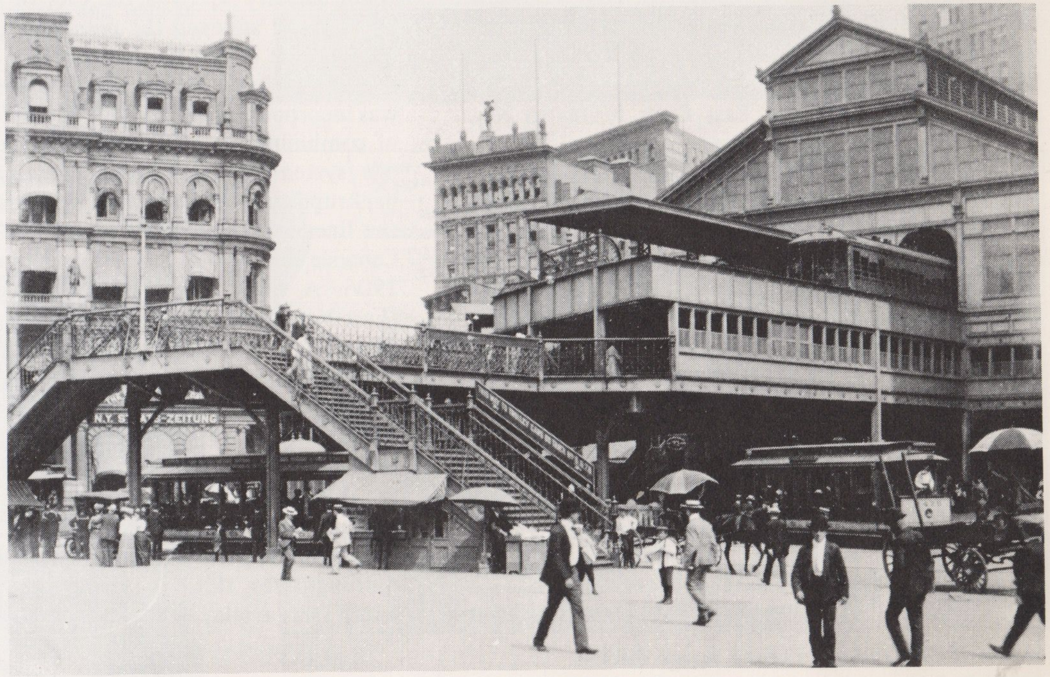
Membership Application upon request.

Three views of the Park Row, Manhattan terminal of the Brooklyn elevated lines. Located at the western end of the Brooklyn Bridge, and across the street from City Hall in Manhattan's Civic Center, the terminal was constructed in 1883 to serve the cable trains of the Brooklyn Bridge railway crossing the East River from Brooklyn. The terminal, which was torn down in 1944, was rebuilt or modified a number of times, both inside and out. The upper photo was taken after the track extension and walkway across Park Row were removed in 1935. The bi-level City Hall stub-end terminal of the IRT (at left) served Second Avenue el trains on its upper level and Third Avenue el trains below. At right a streetcar of the Third and Amsterdam line of the Third Avenue railway Company passes the Pulitzer building, headquarters of the *New York World*. The bottom photos show the BRT Park Row terminal in 1905. The original IRT Third Avenue el City Hall terminal is shown in the left photo. This terminal was rebuilt into a bi-level station in 1916, concurrent with track changes at Chatham Square permitting Second Avenue el trains to share the terminal. In the right photo, Metropolitan Street Railway open car 2475 emerges from under the extension of the BRT terminal. The walkway between the two terminals was torn down when the BRT Park Row terminal was further extended and enclosed in 1907. *top: Sprague Library; bottom: courtesy Robert L. Presbrey*







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Coney Island. Through service was operated by the West End over this route during the summer of 1876. By 1877 the line was acquired by Austin Corbin, who converted it to narrow gauge and extended it to both Manhattan Beach and East New York. In 1883, three years after Corbin acquired the LIRR, the line was converted back to standard gauge and linked to the rest of the Long Island system at East New York. The East New York line eventually became the Bay Ridge branch of the LIRR and is now part of the Penn Central, while the Manhattan Beach line, which paralleled the Brighton line from Avenue I to Sheepshead Bay, is now abandoned. Neither of these lines ever became part of the Brooklyn elevated railroad network but several joint services were operated.

The Brooklyn & Rockaway Beach railroad was constructed in 1865 between East New York and Canarsie Landing, where a connecting ferry line crossed Jamaica Bay to Rockaway Beach. Eventually the section between Pitkin Avenue and Canarsie became the eastern section of the BRT Canarsie line while the remainder was taken over by the LIRR.

Within the original city limits of Brooklyn a number of steam-operated railroads, elevated on steel structures above city streets, were constructed. These lines were built to connect the outskirts of Brooklyn with downtown and the East River ferries to New York City. The first line was completed by the Brooklyn Elevated Railroad in 1885, running from Fulton Ferry to Van Siclen Avenue and Fulton Street via York Street, Hudson Avenue, Park Avenue and Grand Avenue to Myrtle Avenue, and then over the route of the Lexington Avenue and Broadway els. This was followed in 1888 by the Broadway line from Broadway Ferry and the inner portions of the Fifth Avenue line (from Hudson and Park Avenues to Flatbush and Atlantic Avenues) and the Myrtle Avenue line (from Sands Street to the Lexington Avenue line at Grand Avenue and on to Broadway), built by the Union Elevated Railroad, a subsidiary of the Brooklyn Elevated. Another company, the Kings County Elevated, built the Fulton Street elevated from Fulton Ferry to Fulton and Sackman Streets in 1888.

By the end of 1893 the five elevated lines had been extended eastward (and southward) to the Brooklyn city limits, generally the outer limits of elevated track in 1910.

A major milestone in the history of New York City occurred on May 24, 1883, when the Brooklyn Bridge opened, connecting Brooklyn and Manhattan. The first transit operation across the new bridge commenced on September 24, 1883 and consisted of cable-operated train service; the designers of the bridge did not think the structure would stand up to the concentrated load of steam engines. Steam engines did, however, switch trains at the terminals and pulled passenger cars across the bridge at times when the cable was not operating. The Brooklyn Bridge railway was electrified in November 1896, but cable remained the principal means of propulsion with electricity used in emergencies and to replace the steam switching. The elevated companies leased the trackage across the bridge in August 1897 and partial through service to Park Row in Manhattan began via the Myrtle Avenue el in June 1898, and via the Fulton Street el less than five months later, but cable shuttle trains still provide most trans-bridge service.

On January 1, 1898 the City of Brooklyn, which by then had annexed the remainder of Kings County, became one of the five boroughs of New York City.

The Brooklyn Union Elevated Railroad Company was incorporated by the BRT in 1899 for the purpose of combining the elevated railroads of Brooklyn into one system. By that time many of the lines were bankrupt and were operated by receivers. By 1900 all the lines were controlled by the BRT except for the Canarsie line, which did not come into the fold until 1906. A track connection at Manhattan Junction (East New York) between the Kings County (Fulton Street) and Brooklyn Elevated (Broadway-Lexington) systems in 1900 made the corporate consolidation of the two elevated companies a physical reality.

As a result of the ongoing perfection of multiple-unit control and the success of streetcar operation, the BRT converted the steam lines to 600-volt DC electric operation. Since most of the ground level lines ran on private rights-of-way in the center of thoroughfares, third rail could not be used at street level. Thus trolley wire was strung over the surface lines: the West End was electrified in 1893, the Sea Beach in 1897 and the Brighton and Culver in 1899. At that time streetcars began sharing some of the trackage with the elevated trains. The elevated lines were electrified with exposed, overrunning third rail between 1898 and 1900.

Steam operation, however, did not immediately disappear as a result of the electrification. Because of a rolling stock shortage, many trains were still steam-hauled, while electric motors pulled steam trailers until a sufficient number of multiple-unit cars could be placed into service.

Prior to electrification, several through services were operated with steam. Among them were Fifth Avenue-West End, Fifth Avenue-Culver and Fulton Street-Brighton. With the electrification and the introduction of cars equipped with both third rail shoes and trolley poles, service was extended to Park Row in 1901 without the need to change motive power. Cable operation for Bridge local trains, however, continued to 1908.

The existence of two dangerous right-angle grade crossings on the Myrtle Avenue elevated structure (at Hudson Avenue and at Grand Avenue) was a major factor in the abandonment of the western section of the first el. Because of a grade crossing accident on the day after the opening of the Fifth Avenue el, curves were installed on the northeast and southwest quadrants of both of the two crossings and all service was routed over them (e.g. Lexington Avenue trains ran via Myrtle Avenue and Myrtle Avenue trains ran via Park Avenue), starting in 1889. The complexities of these routing and the fact that Park Avenue is only one long block from Myrtle Avenue resulted in the abandonment of the elevated along Park Avenue and Grand Avenue above Myrtle in 1891. The remaining section of the first el, from Fulton Ferry along York Street and Hudson Avenue to Myrtle Avenue, was abandoned in 1904 as traffic to Fulton Ferry had dwindled with the operation of through service across the Brooklyn Bridge (and the ferry was also served by the Fulton Street line). This abandonment also resulted in the end of steam passenger service on the elevated system, as the line had never been electrified.

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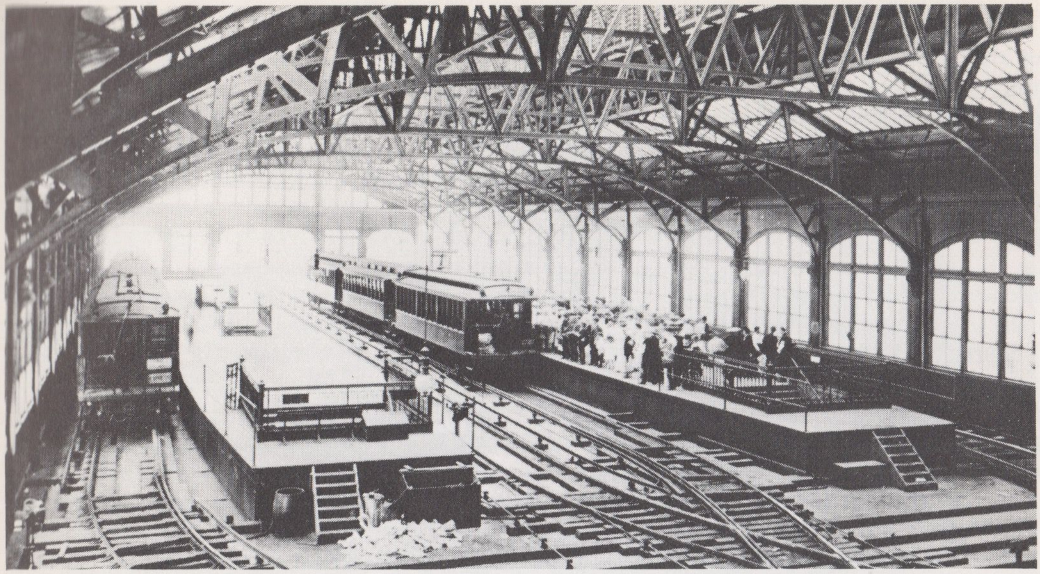
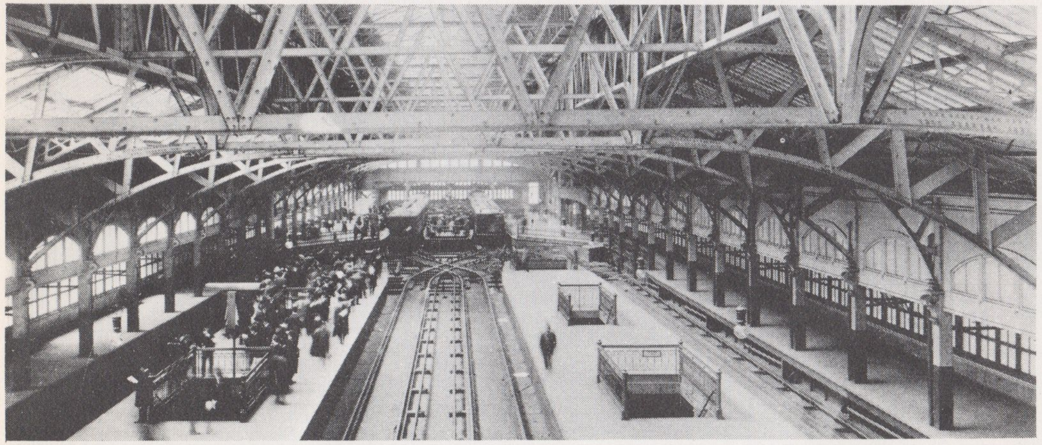
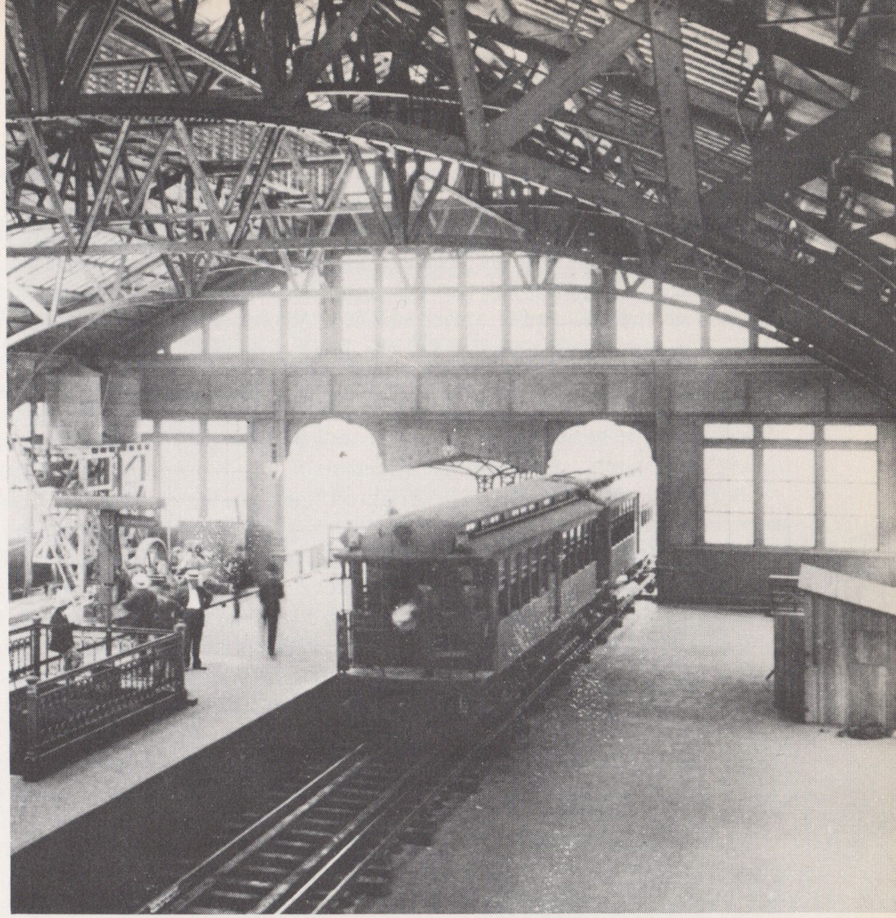
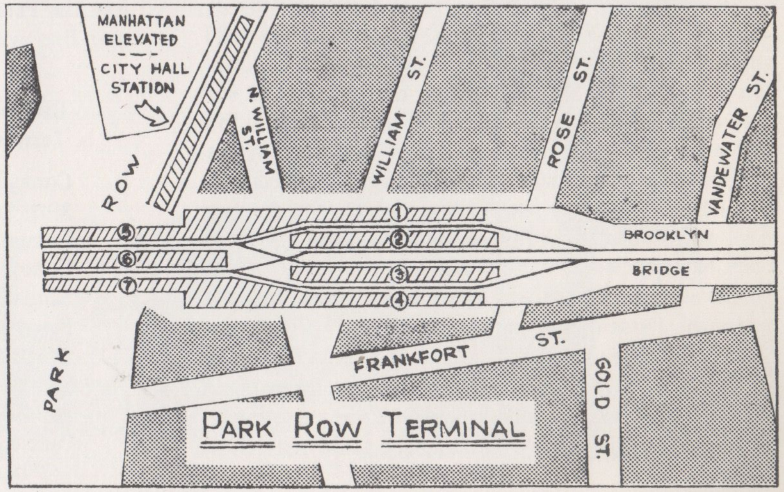


Three interior views of the Park Row, Manhattan terminal of the BRT. The terminal was shared by elevated trains, which used the upper level, and streetcars, which looped on the lower level. Until the opening of the first IRT subway tunnel to Brooklyn (the Joralemon Street tube) in 1908, the Brooklyn Bridge railway was the only rapid transit route between Brooklyn and Manhattan, and was subject to heavy crowding. As a result the terminal underwent extensive reconstruction between 1905 and 1907 with the installation of outside platforms and the extension of tracks and platforms to permit the operation of longer trains. ABOVE: Two el trains are shown in this 1905 view, looking eastward toward the bridge. RIGHT: Looking westward toward the recently completed extension of the terminal, a Myrtle Avenue el train is shown loading passengers in 1905. BELOW: The reconstructed and fully-enclosed Park Row terminal in 1907. The eastern end of the station, with four tracks and four platforms, is shown in the foreground. Three platforms serving two tracks ending at bumper blocks were located at the western end of the terminal. This platform arrangement provided for the separation of the loading and unloading positions for the different lines crossing the bridge.

all courtesy Robert L. Presbrey







1–Exit
2–Fulton St. & Exit
3–Fifth Ave. & Culver
4–West End
5–Myrtle Ave.
6–Lexington Ave.
7–Brighton

(continued from page 4)

The Myrtle Avenue el was extended from Wyckoff Avenue at the Brooklyn-Queens boundary to Metropolitan Avenue via surface trackage in 1906. In the same year the Canarsie line was linked to the elevated system via the Fulton Street line at Pitkin Avenue. In 1907 through electric service via the Fifth Avenue-West End-Sea Beach route was inaugurated between Park Row and Coney Island; the western end of the Sea Beach line between Bath Junction and Bay Ridge being exclusively operated by streetcars.

Between 1905 and 1910 the Brighton line's grade crossings were eliminated by the construction of a cut and an embankment between Church Avenue and Neptune Avenue and two more tracks added. In addition, the Manhattan Beach line of the LIRR was moved onto the Brighton embankment resulting in the creation of a six-track right-of-way, and the spur to Sheepshead Bay Race Track was constructed. The Broadway elevated was extended across the Williamsburgh Bridge to an underground terminal at Delancey and Essex Streets in 1908, five years after the bridge opened.

In 1910 the borough of Brooklyn had a population of 1,634,000. In that year the 157-mile long Brooklyn elevated network carried a total of 170,752,487 passengers in 928 cars. The longest run on the system was the summer-only service from Delancey Street, Manhattan to Rockaway Beach, Queens via the BRT and LIRR using a ramp at Chestnut Street connecting the el on Fulton Street with the railroad on the surface of Atlantic Avenue. Service over the 18-mile line was provided by alternate BRT and LIRR MU trains. Since the third rail was located in different positions on the two railways, the rolling stock was equipped with adjustable third rail shoes. As a train traversed the Chestnut Street incline at five miles per hour, the position of each shoe was adjusted and locked by the action of a stationary cam alongside the track on the arm of the hinged shoe.

This operation was the last of a series of combined BRT-LIRR services which began with the predecessor companies in the days of steam. The table lists these services.

Another unusual through service was operated by the BRT for about six months during 1903. It consisted of an extension of elevated service to Jamaica in Queens via a ramp along Crescent Street just short of the Cypress Hills terminal and streetcar trackage on Jamaica Avenue. Apparently, the service was abandoned due to the enactment of a law declaring the operation of elevated trains on street pavement a public nuisance.

During the decade after 1910 the Brooklyn elevated system was rebuilt to a great extent starting with the dual (subway) contracts of 1913. Of the surface lines to Coney Island, the West End and Culver were replaced by elevated structures over the same or closely parallel routes, while the Sea Beach line was placed into an open cut and extended westward over its original routing to link up with the new Fourth Avenue subway. (The West End and Culver lines also were connected to the Fourth Avenue subway, at 36th Street.) The Brighton line south of Neptune Avenue was placed onto an elevated structure, while a subway connection to the Fourth Avenue line was built along Flatbush Avenue between Prospect Park station and DeKalb Avenue.

The elevated structure along Broadway was rebuilt with the addition of a third track. On the western end it was extended south from Delancey Street via a subway under Centre Street to Chambers Street, below the Park Row elevated terminal. The Myrtle Avenue line was third-tracked east of Broadway and a connection added between the two lines allowing the operation of trains from Metropolitan Avenue across the Williamsburgh Bridge to Chambers Street. In Ridgewood the surface tracks were elevated between Wyckoff Avenue and Fresh Pond.

The Fulton Street line was extended eastward along Liberty Avenue to Lefferts Avenue in Richmond Hill while part of the original route along Fulton Street was rebuilt and a third track added between Franklin Avenue and East New York. A new extension was built from Cypress Hills to Jamaica via Jamaica Avenue, and the entire complex at East New York (Manhattan Junction) was reconstructed.

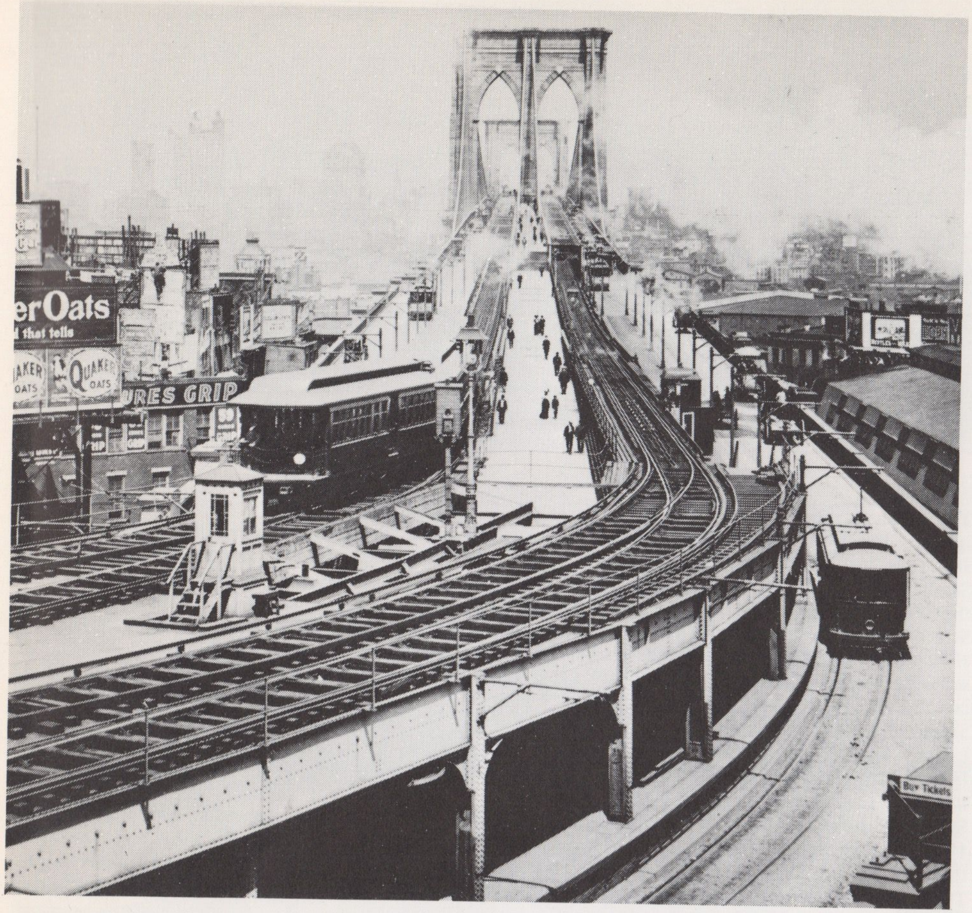
It is planned to illustrate these changes in a succeeding volume of "The Tracks of New York." Additional volumes of "The Tracks of New York," published by the Electric Railroaders' Association, dealing with the Manhattan elevated lines and the Brooklyn streetcar lines are in preparation.

The author and editor would like to express their appreciation to **Donald Harold,** Francis J. Goldsmith, Jr., Bernard Linder, William J. Madden, Robert L. Presbrey and Edward B. Watson for their help in preparing this volume. In addition, the cooperation of the New York Historical Society (Miss Wendy J. Shadwell and Mr. Jan B. Hudgins), the Brooklyn Public Library (Ms. Marie Spina), and the James A. Kelly Historical Studies Institute of St. Francis College (Mr. Arthur Knop) is greatly appreciated.

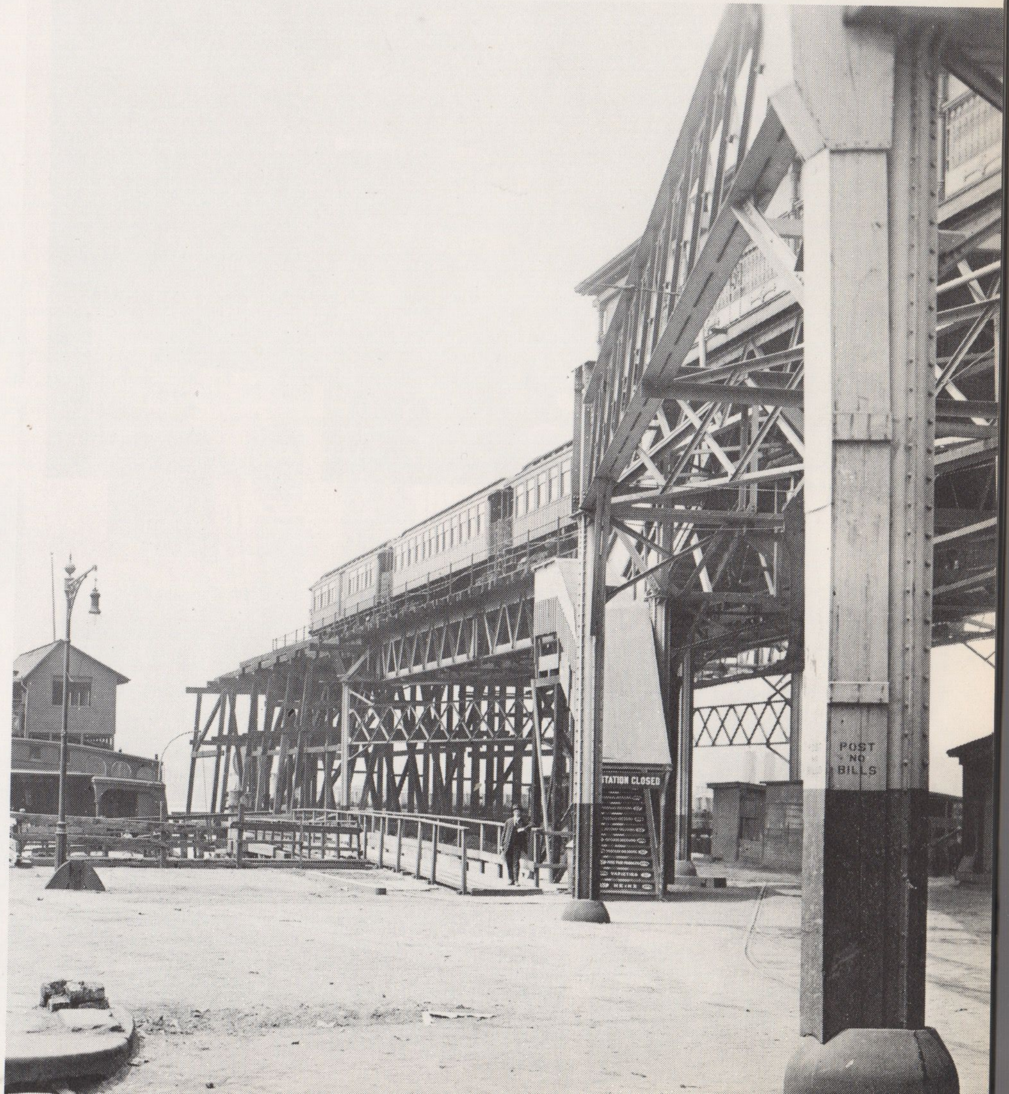
BRT or predecessor		LIRR or predecessor		Time
Terminal	Line	Terminal	Junction	Period
Coney Island	West End	Bay Ridge	Bath Jct.	1876
39th St. Ferry	Culver	Manhattan Beach	Parkville	1898-1902
Coney Island	Culver	Bay Ridge	Parkville	1885-1897
Coney Island	Brighton	Flatbush Term.	Bedford Jct.	1878-1883
Sands Street	Culver	Manhattan Beach	Parkville	1895
Broadway Ferry*	Broadway	Rockaway Beach	Chestnut St.	1898-1917
Broadway Ferry	Broadway	Jamaica	Chestnut St.	1898-1899
Sands Street	Fifth Avenue	Rockaway Beach	Flatbush	1899-1904
Sands Street	Fifth Avenue	Jamaica	Flatbush	1899-1904
Park Row	Brighton	Manhattan Beach	**	1899-1907

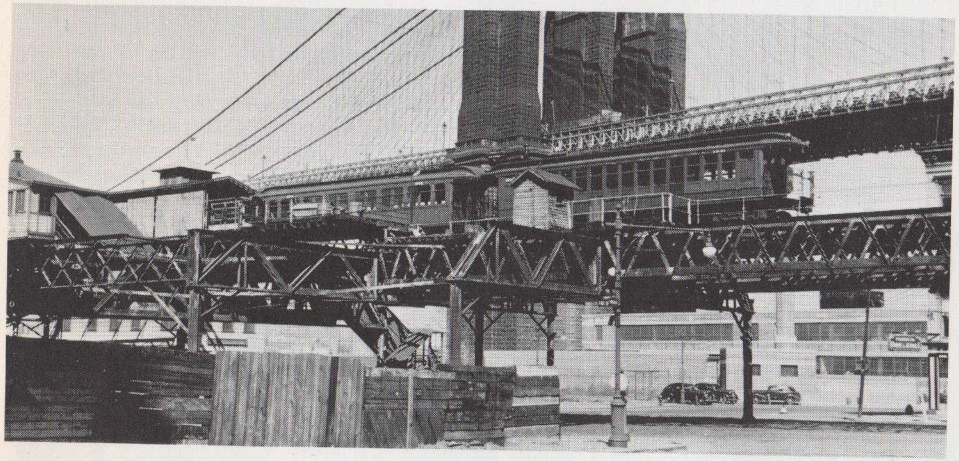
*later Delancey Street then Chambers Street

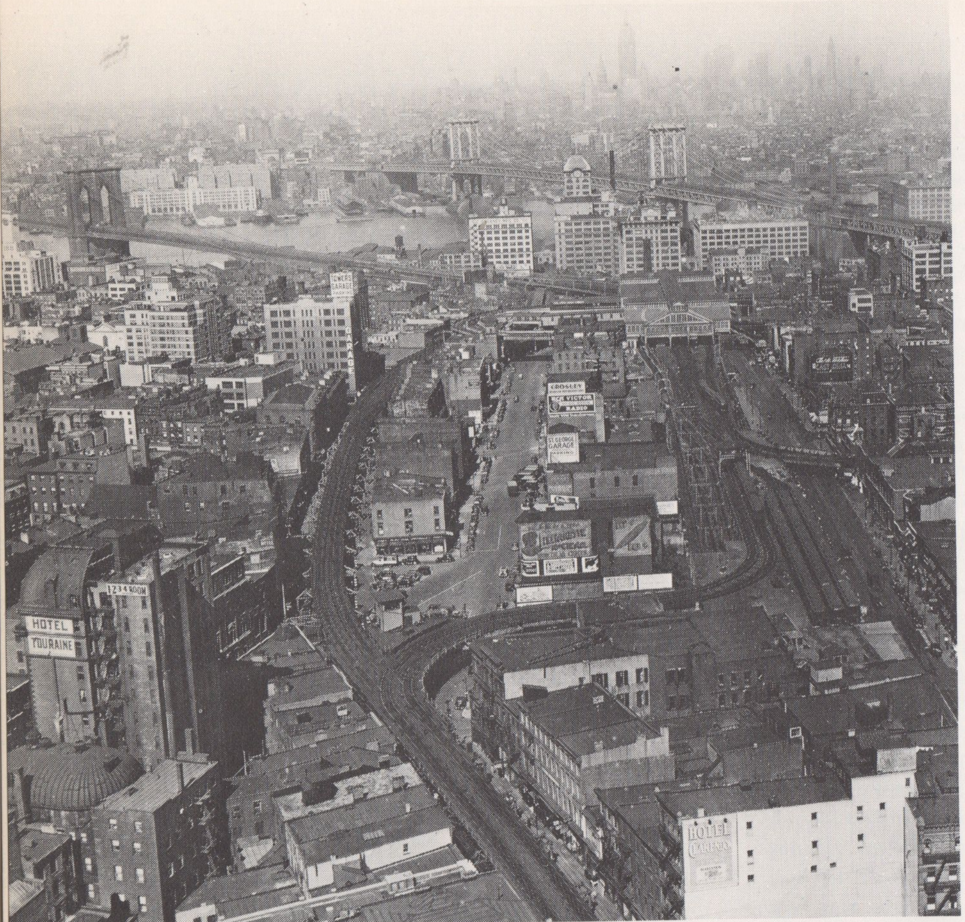
**not a joint service—BRT had trackage rights over the LIRR

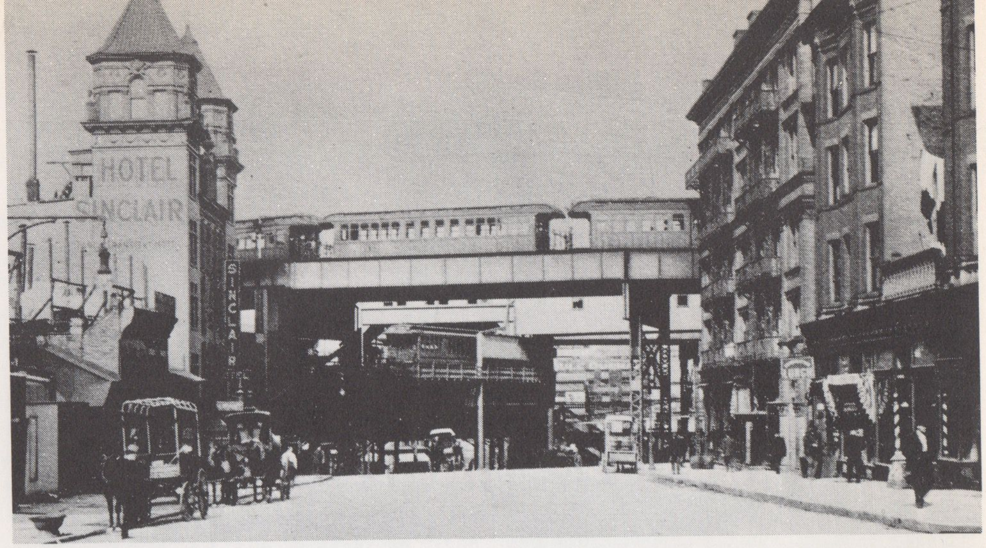


LEFT: A cable train takes the curve leading from the Brooklyn Bridge to the outside rails of Sands Street station in 1904. The use of gauntlet track on the bridge railway during the cable years minimized switching errors at the multi-track terminals on either side of the bridge. *courtesy Francis J. Goldsmith, Jr.* **BELOW AND BELOW LEFT:** Fulton Ferry, the original terminal of the Kings County Electric Railway in 1914 and 1940. Even though the construction of the East River bridges doomed the ferry boats, Fulton Street service to the riverfront was maintained by the BRT and BMT until 1940, when the City acquired the private company and abandoned the western portion of the line. *courtesy Robert L. Presbrey and Francis J. Goldsmith, Jr.*

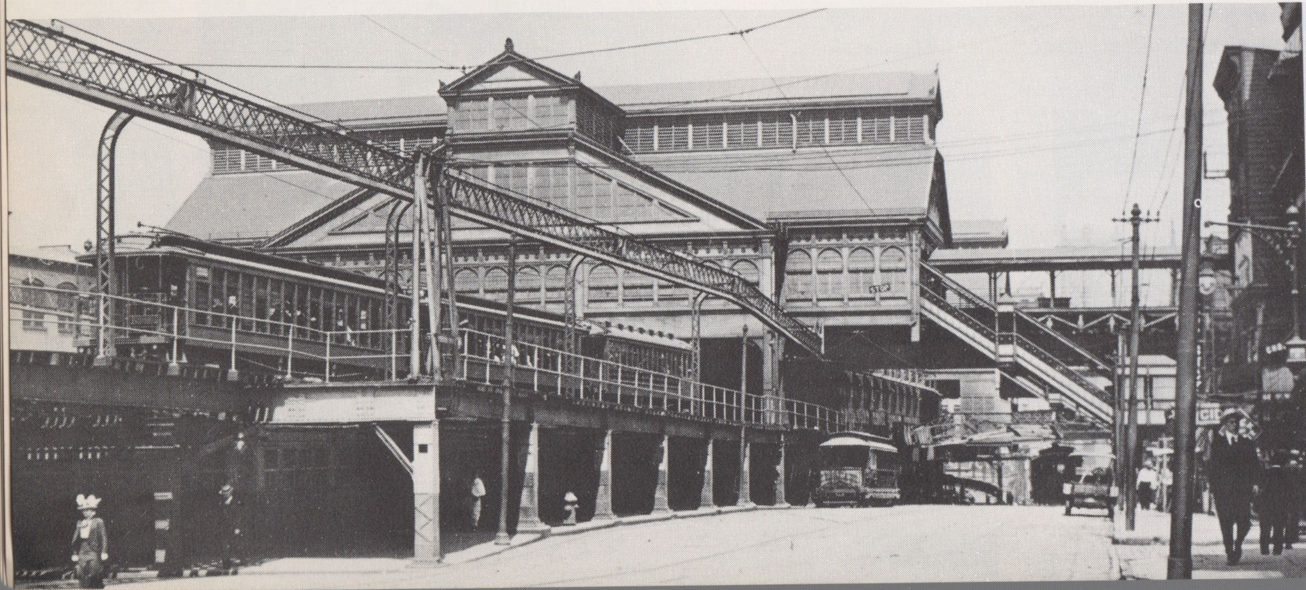




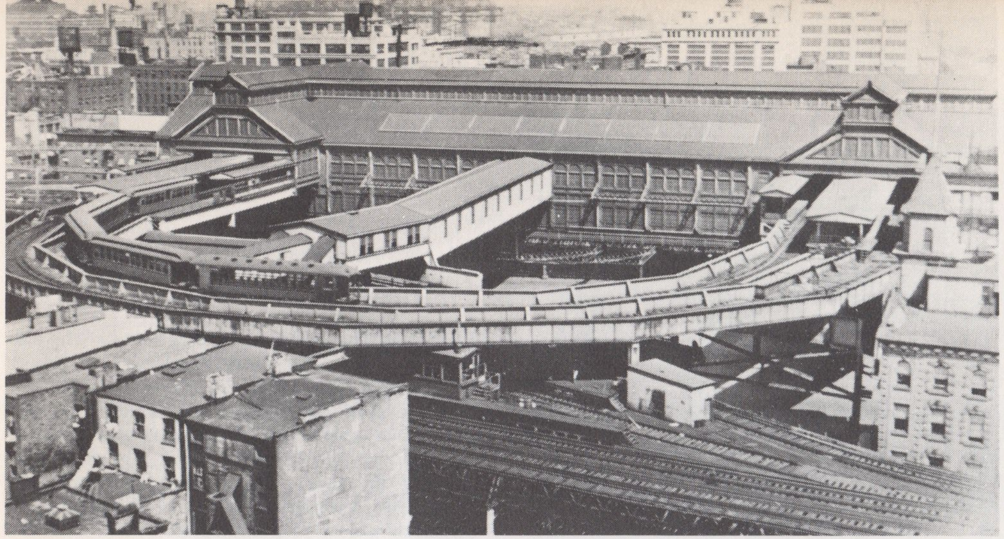


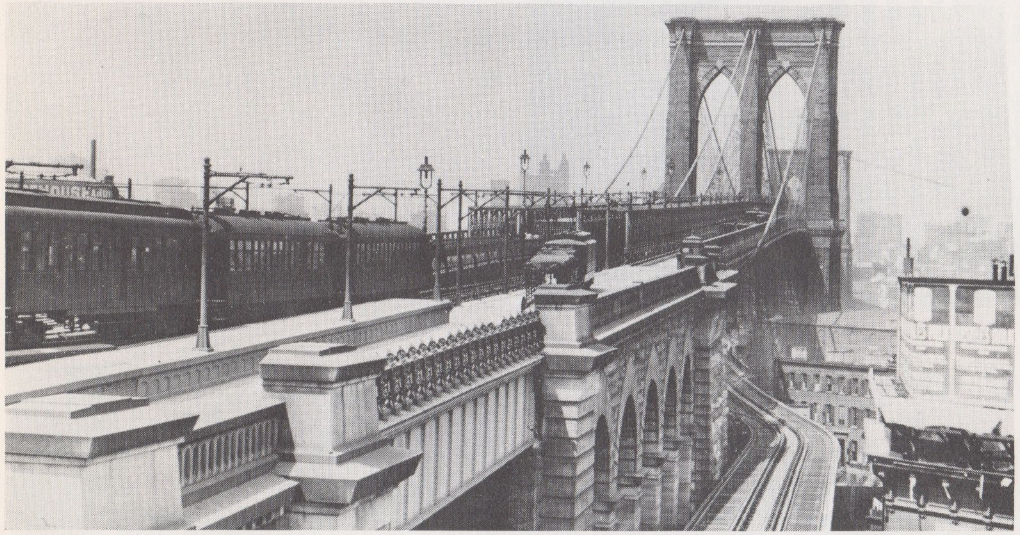


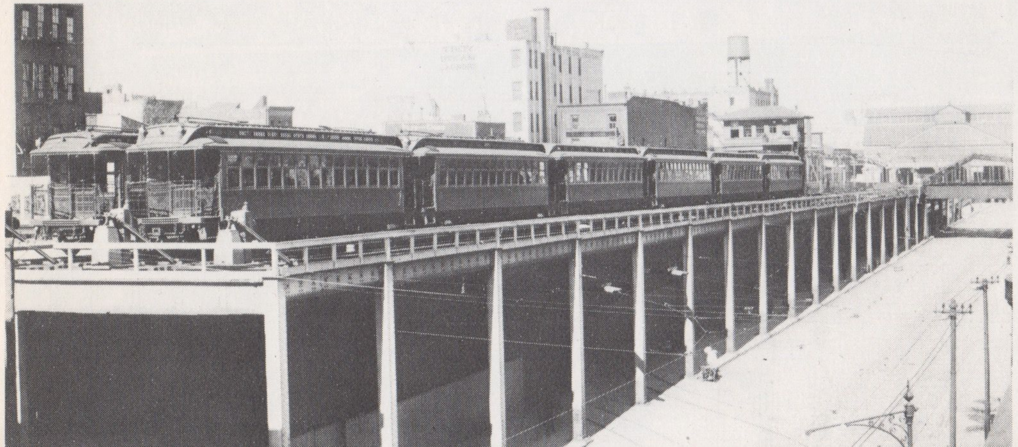
The Sands Street complex was one of the more interesting junctions on the Brooklyn elevated system. The station itself consisted of four platform areas for elevated trains. Two were located on an upper level used by trains from the Myrtle-Lexington-Fifth Avenue group that terminated at Sands Street. The lower level contained the through tracks, connecting Brooklyn Bridge with both the Fulton Street and Myrtle-Lexington-Fifth Avenue lines, and a stub-end terminal for Fulton Street trains. In addition, Bridge yard, the Fulton Ferry spur and trolley ramps on each side of the el tracks were part of the Sands Street scene. LEFT: An aerial view of the Sands Street area showing the Brooklyn and Manhattan Bridges with the Empire State Building in the background. In late 1935 the Brooklyn Bridge el service was in its final decline with the upper level of Sands Street already having been closed. *courtesy Robert L. Presbrey*. ABOVE: A view northward along Liberty Street from Nassau Street shows a Myrtle Avenue train on the upper level loop and a Fulton Street train in the lower level stub-end tracks of the old Kings County el "Brooklyn Bridge" terminal. *courtesy Robert L. Presbrey*. BOTTOM: Looking towards High Street along Washington Street. A three-car, Park Row-bound train enters the lower level of Sands Street station in this 1915 view. The overhead steel work at the two edges of the structure were trolley bars (overhead third rail), which carried the 600-volt current used by the BRT streetcar lines on the outer tracks. The trolleys reached the elevated structure via ramps south of the station. *Brooklyn Public Library*

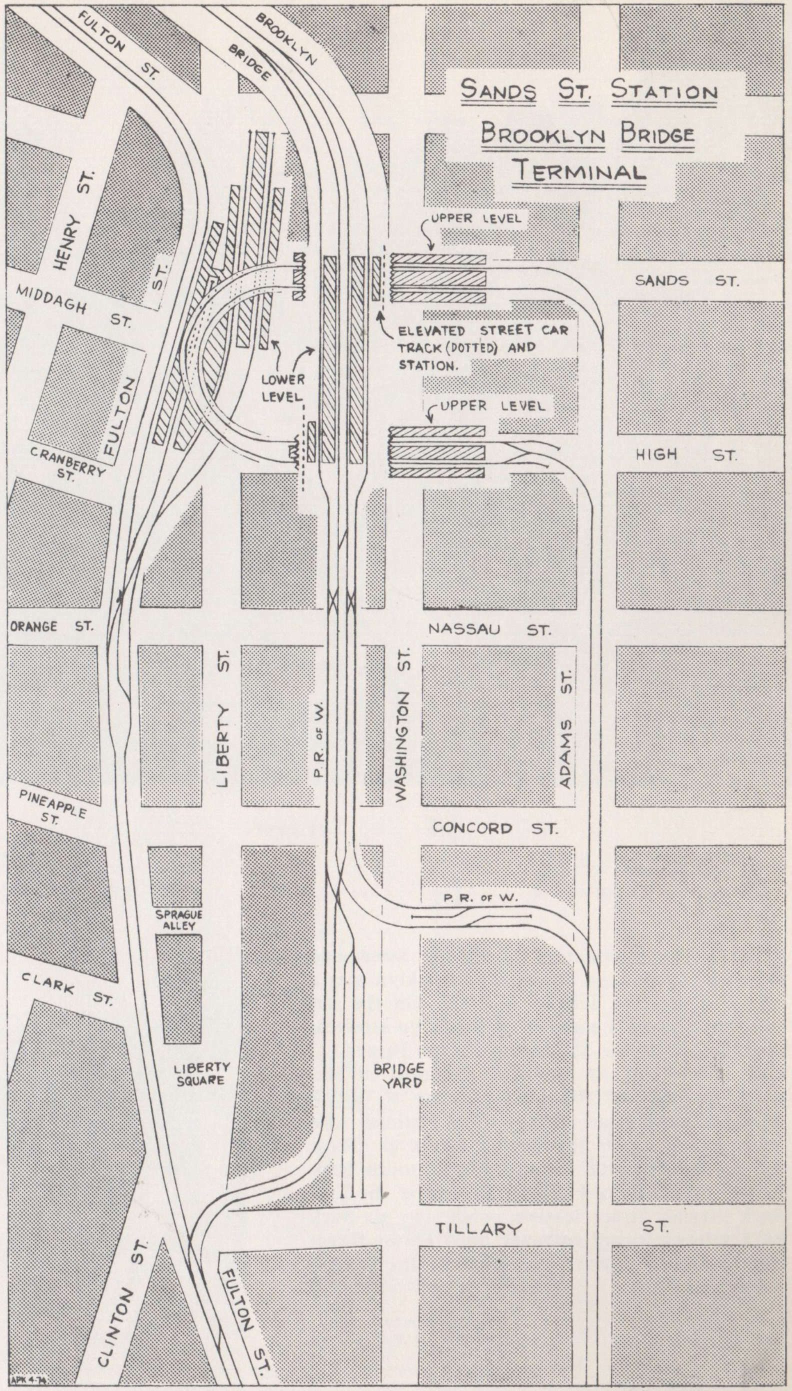


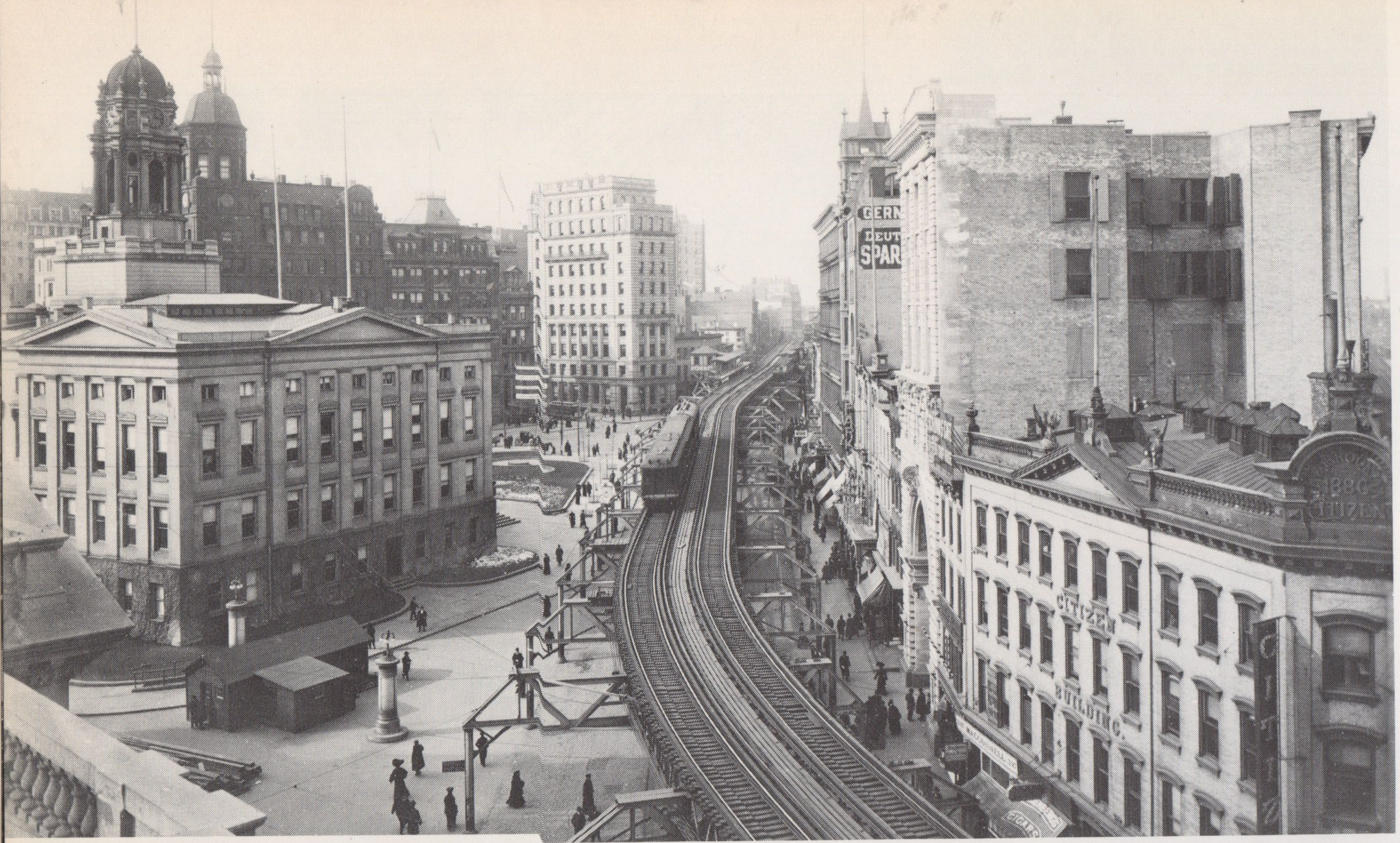
OPPOSITE PAGE–
TOP: A view of the Sands Street complex from the west, showing a train on the upper level loop and the Fulton Street el tracks in the right foreground. All trains on the double-track upper level operated from left to right (counter-clockwise). The passageways connecting the different sections of the station are illustrated in this 1934 view. *Brooklyn Public Library*. MIDDLE: A view from northeast of the Brooklyn Bridge showing the never electrified tracks of the original main line of the Brooklyn elevated leading into its Fulton Ferry terminal. This photo was taken in 1904, just prior to the abandonment of the 1885-built line. *courtesy Francis J. Goldsmith, Jr.* BOTTOM: A view of Bridge yard and tower from Washington and Tillary Streets in 1911. The streetcar tracks shown turning left off Washington Street led onto ramps on either side of the el tracks to enter the lower level of Sands Street station, allowing trolleys to reach the roadways of Brooklyn Bridge without grade crossings.
courtesy Robert L. Presbrey





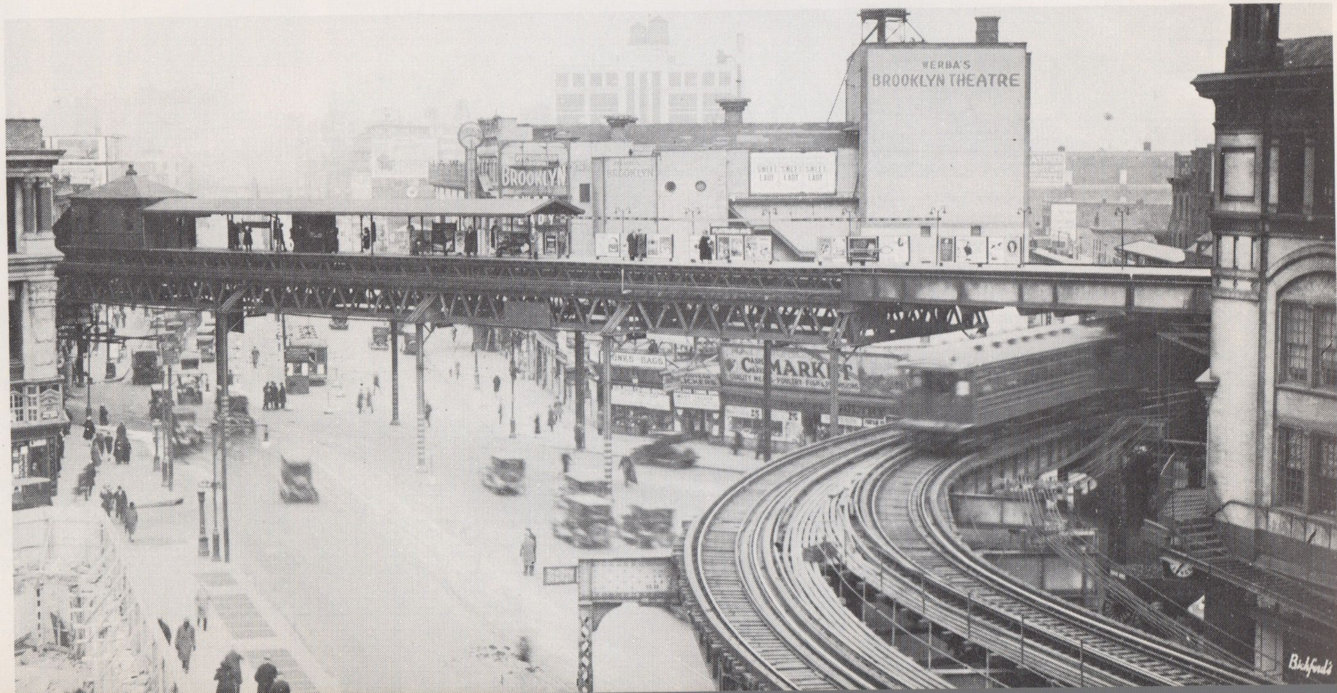


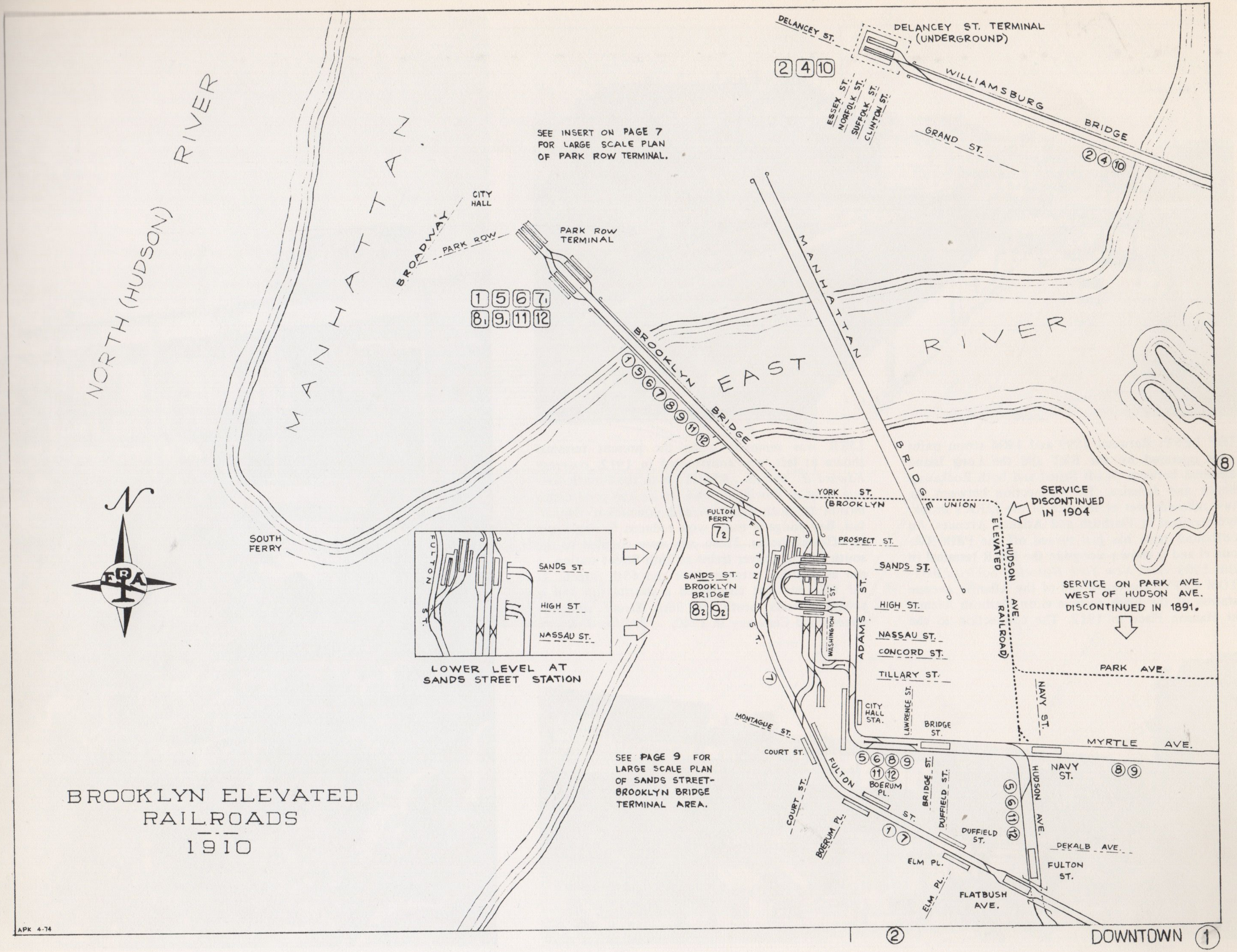

SANDS ST. STATION
BROOKLYN BRIDGE
TERMINAL
FULTON ST.
BROOKLYN
BRIDGE
HENRY ST.
MIDDAGH ST.
ST.
FULTON
CRANBERRY ST.
UPPER LEVEL
SANDS ST.
ELEVATED STREET CAR TRACK (DOTTED) AND STATION.
LOWER LEVEL
UPPER LEVEL
HIGH ST.
ORANGE ST.
NASSAU ST.
LIBERTY ST.
P.R. of W.
WASHINGTON ST.
ADAMS ST.
PINEAPPLE ST.
CONCORD ST.
SPRAGUE ALLEY
P. R. of W.
CLARK ST.
LIBERTY SQUARE
BRIDGE YARD
TILLARY ST.
CLINTON ST
FULTON ST.
APK 4-74



LEFT: Looking northward along Fulton Street in downtown Brooklyn from Joralemon Street at Borough Hall. This 1905 view shows the structure of the Fulton Street elevated, which typically consisted of supporting columns on the sidewalk and a narrow double-track right-of-way above the center of the street. The spidery steelwork supporting the trackage gave the el its nickname, "the black widow of Fulton Street."
courtesy Edward B. Watson

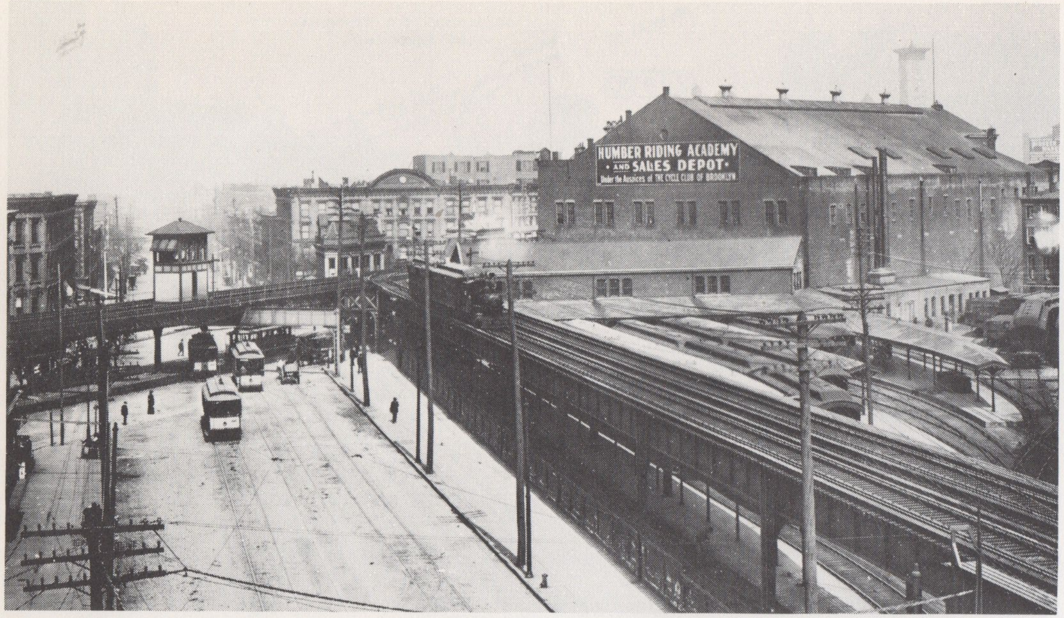
RIGHT: The intersection of Fulton Street and Flatbush Avenue in downtown Brooklyn was a center of traction activity in 1927. On the surface, there were a number of Brooklyn streetcar lines as well as the Manhattan Bridge Three-Cent line, which had its Brooklyn terminal at this point. In the air the Fifth Avenue el, which turned from Hudson Avenue onto Flatbush Avenue, crossed under the Fulton Street el. Below the ground the IRT subway turned south from Fulton Street onto Flatbush Avenue at the five-track Nevins Street station, while the six-track BMT subway jogged eastward onto Fulton Street from Flatbush Avenue just south of the DeKalb Avenue station. *Sprague Library collection*



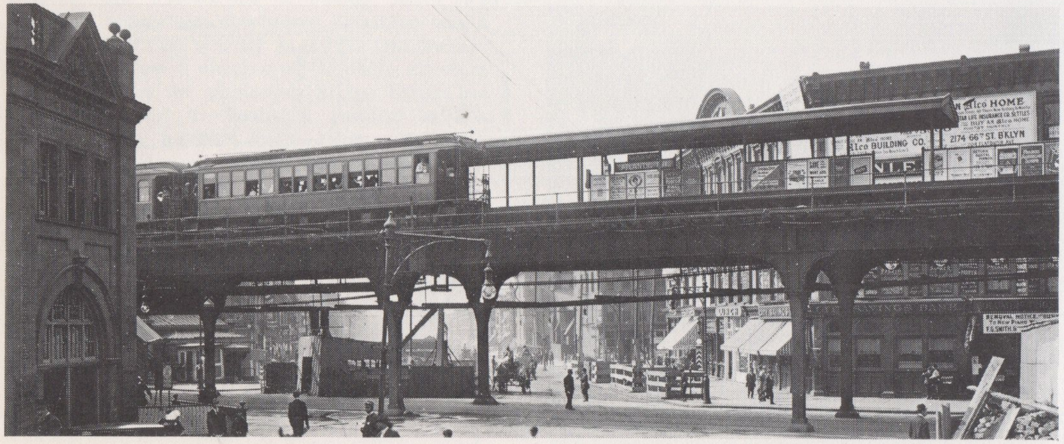


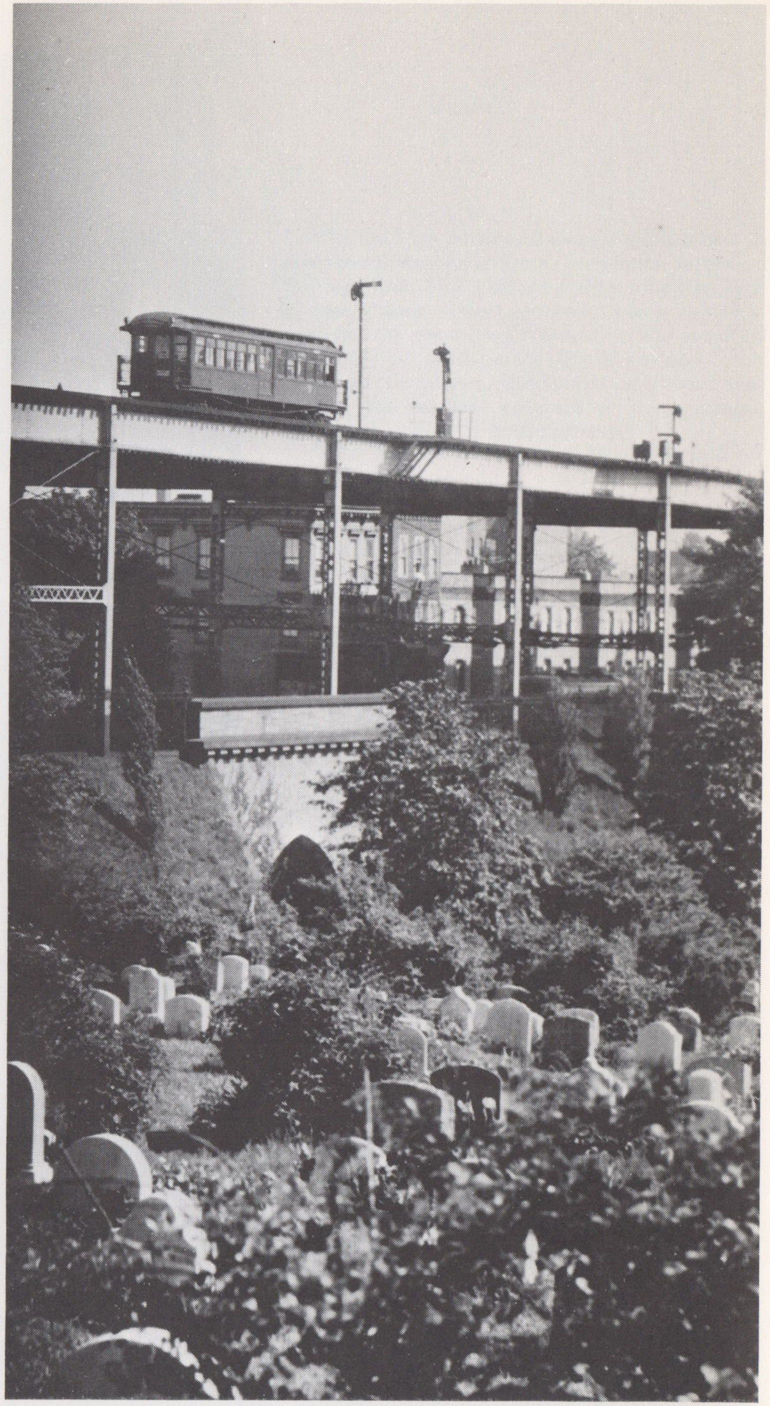
BROOKLYN ELEVATED RAILROADS
1910

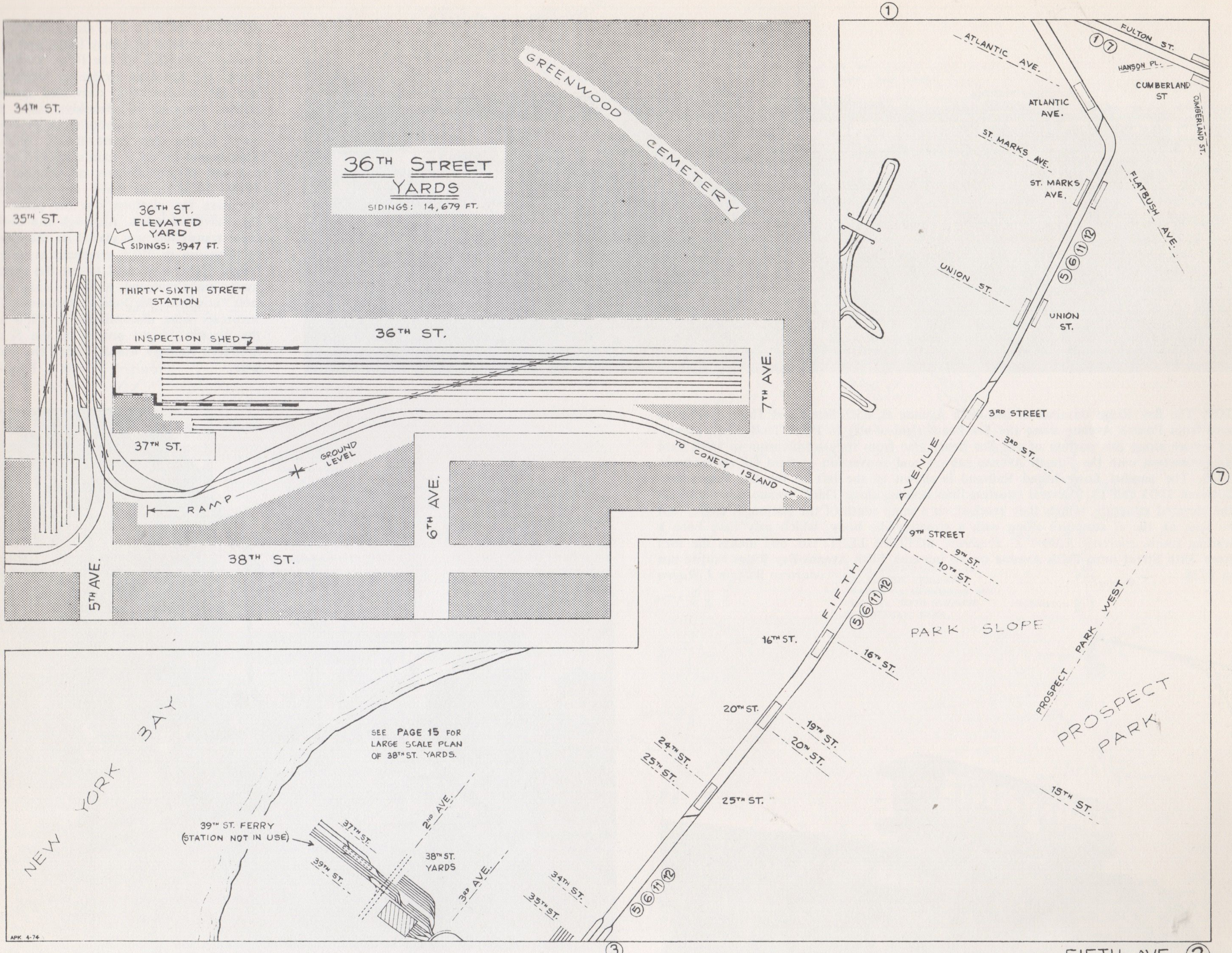
② DOWNTOWN ①



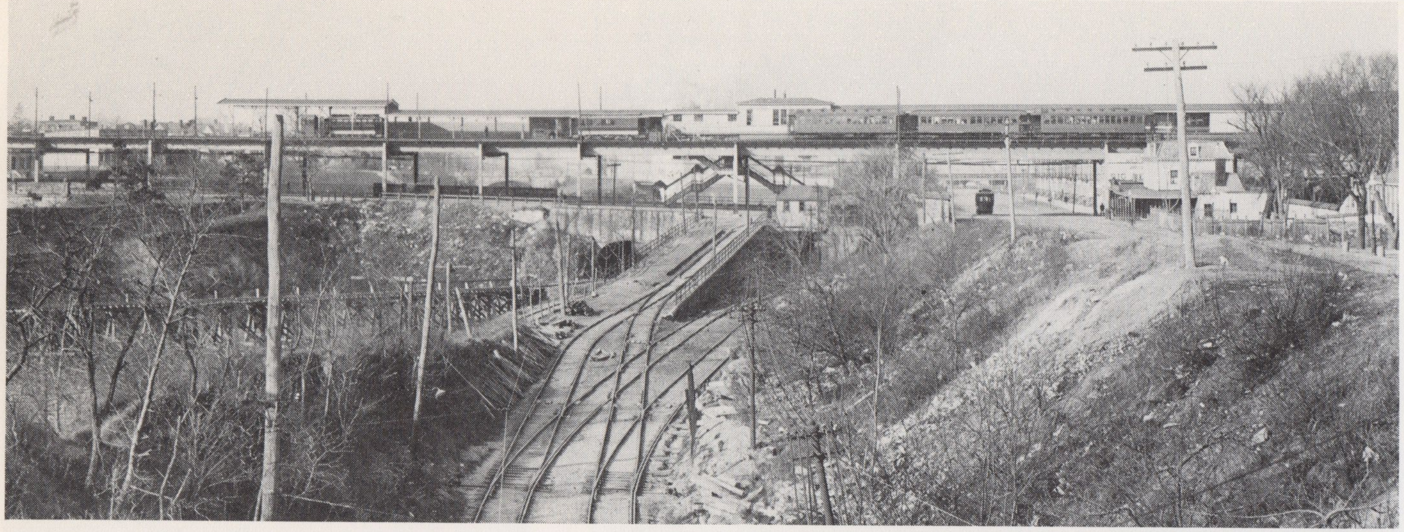
TOP LEFT: Between 1899 and 1904 steam trains were operated by the BRT and the Long Island Railroad between Sands Street and both Rockaway Beach and Jamaica. The connection between the two railroads was at the site of the LIRR's Brooklyn terminal at Flatbush and Atlantic Avenues. An outbound train has just turned off the Fifth Avenue el and is shown alongside the LIRR terminal in this 1903 view. *New York Historical Society*. BOTTOM LEFT: The north end of the Atlantic Avenue station of the Fifth Avenue el on Flatbush Avenue at Hanson Place in 1912. The connection to the LIRR was removed when the present terminal shown at left, was constructed in 1912. *courtesy Edward B. Watson*. RIGHT: With the Fourth Avenue subway providing rapid service and good distribution to both midtown and downtown Manhattan, Bay Ridge el trains were reduced to single cars in off-peak hours. These cars were coupled to the south end of Culver trains at 36th Street station or ran as shuttles between 36th and 65th Streets. El car 657 has just completed a shuttle run and is reversing ends north of 36th Street alongside Greenwood Cemetery in 1940. *William J. Rugen*





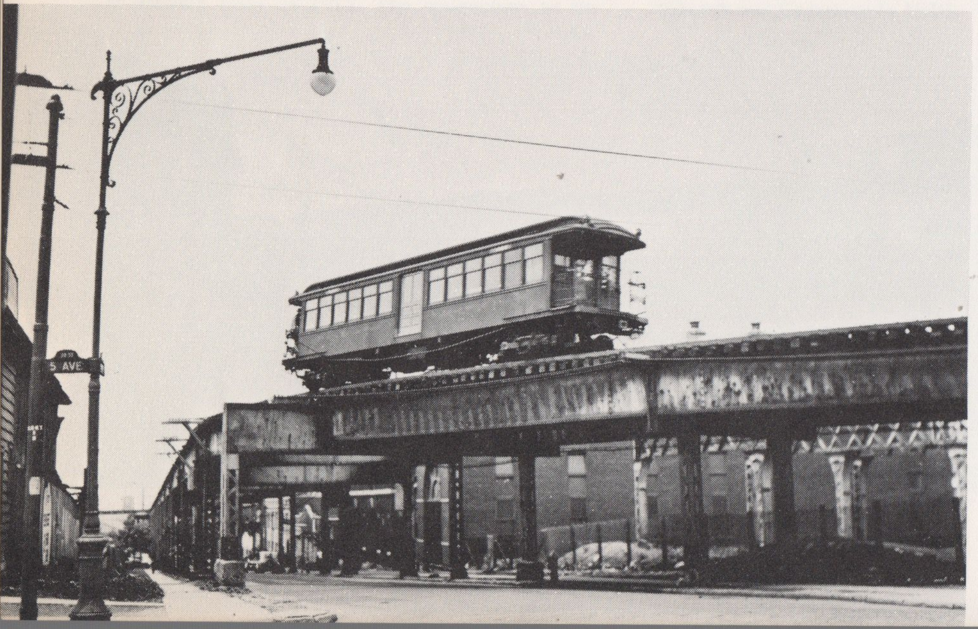

①
36TH STREET YARDS
SIDINGS: 14,679 FT.
GREENWOOD CEMETERY
34TH ST.
35TH ST.
36TH ST. ELEVATED YARD
SIDINGS: 3947 FT.
THIRTY-SIXTH STREET STATION
INSPECTION SHED
36TH ST.
7TH AVE.
37TH ST.
GROUND LEVEL
RAMP
TO CONEY ISLAND
6TH AVE.
38TH ST.
5TH AVE.
NEW YORK BAY
SEE PAGE 15 FOR LARGE SCALE PLAN OF 38TH ST. YARDS.
39TH ST. FERRY (STATION NOT IN USE)
37TH ST.
39TH ST.
2ND AVE.
38TH ST. YARDS
3RD AVE.
34TH ST.
35TH ST.
APK 4-74
③
FULTON ST.
①⑦
HANSON PL.
CUMBERLAND ST
CUMBERLAND ST.
ATLANTIC AVE.
ATLANTIC AVE.
ST. MARKS AVE.
ST. MARKS AVE.
FLATBUSH AVE.
⑤⑥⑪⑫
UNION ST.
UNION ST.
3RD STREET
3RD ST.
⑦
FIFTH AVENUE
9TH STREET
9TH ST.
10TH ST.
⑤⑥⑪⑫
PARK SLOPE
PROSPECT PARK WEST
16TH ST.
16TH ST.
20TH ST.
19TH ST.
20TH ST.
PROSPECT PARK
24TH ST.
25TH ST.
25TH ST.
15TH ST.
⑤⑥⑪⑫

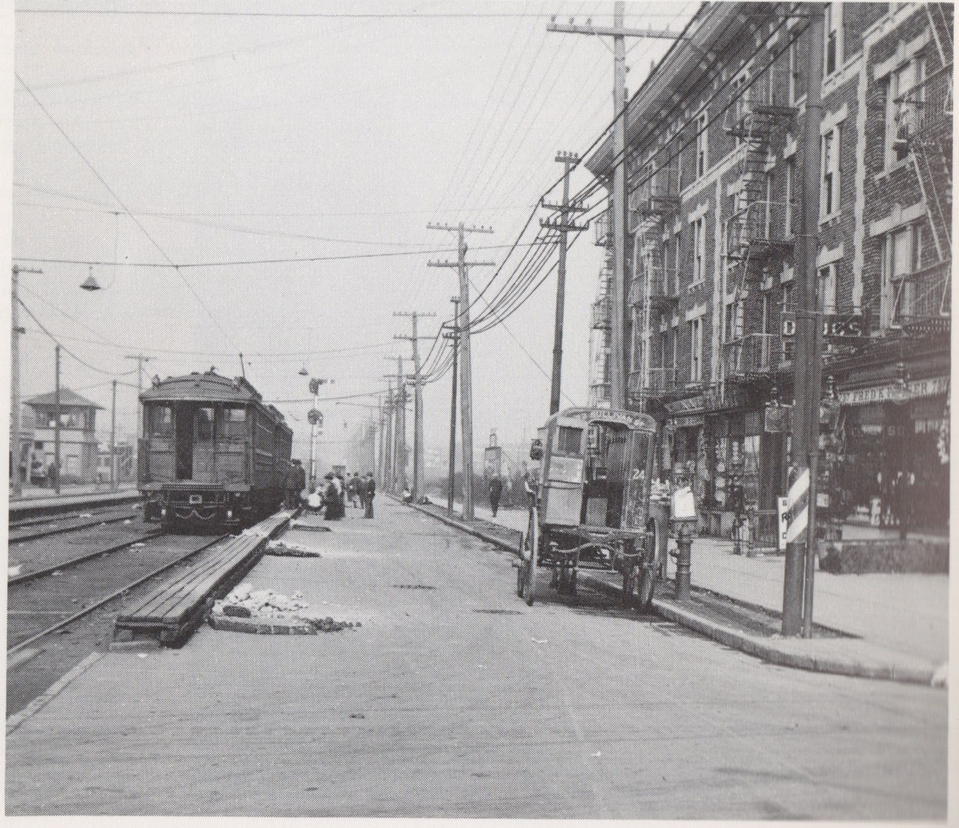
FIFTH AVE. ②

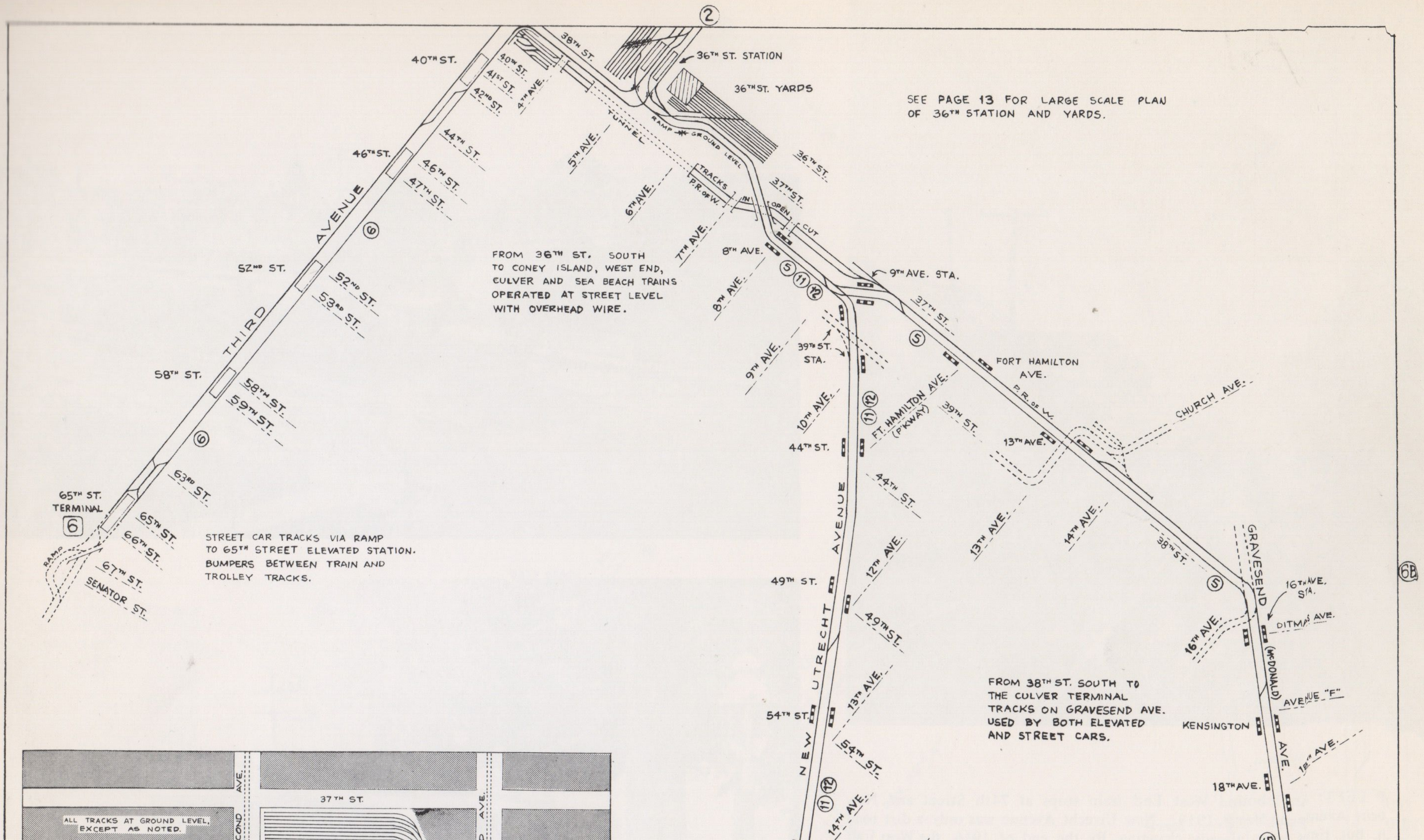


BOTTOM RIGHT: The electrification of the surface lines to Coney Island and their through operation via the Fifth Avenue el across the Brooklyn Bridge to Manhattan was the catalyst that converted sparsely settled sections of Brooklyn into the densely populated neighborhoods of apartment houses that exist today. A New York-bound Culver el train stops at Gravesend and Ditmas Avenues on October 21, 1915. Excavations have already begun alongside the platform for the pillars of the Culver elevated. Although the Culver rapid transit line was placed on the elevated structure in 1919, streetcars as well as freight trains continued to use the surface tracks on Gravesend Avenue (which was later renamed McDonald Avenue). The streetcars were discontinued in 1956 and the electric freight service of the South Brooklyn Railway was dieselized five years later. *courtesy Robert L. Presbrey*

TOP: The Bay Ridge terminal of the Fifth Avenue el, 65th Street and Third Avenue, as seen from Fourth Avenue along the Sea Beach right-of-way in 1913. Trolley cars provided service along this portion of the Sea Beach line from its electrification in 1898 until its connection with the Fourth Avenue subway and conversion to third rail operation in 1915. The parallel Long Island Railroad is shown to the left of the Sea Beach line. Between 1903 and 1919 several streetcar lines running along Third Avenue terminated on the elevated structure, which they reached via a ramp south of the station. A trolley can be seen on the el structure along with a streetcar-like body, which may have been a waiting room. *courtesy Robert L. Presbrey*. BOTTOM LEFT: No. 667 makes the turn from 38th Street onto Fifth Avenue on an inbound Fifth Avenue-Bay Ridge shuttle run in 1938. *courtesy William J. Rugen*







SEE PAGE 13 FOR LARGE SCALE PLAN OF 36TH STATION AND YARDS.

FROM 36TH ST. SOUTH TO CONEY ISLAND, WEST END, CULVER AND SEA BEACH TRAINS OPERATED AT STREET LEVEL WITH OVERHEAD WIRE.

STREET CAR TRACKS VIA RAMP TO 65TH STREET ELEVATED STATION. BUMPERS BETWEEN TRAIN AND TROLLEY TRACKS.

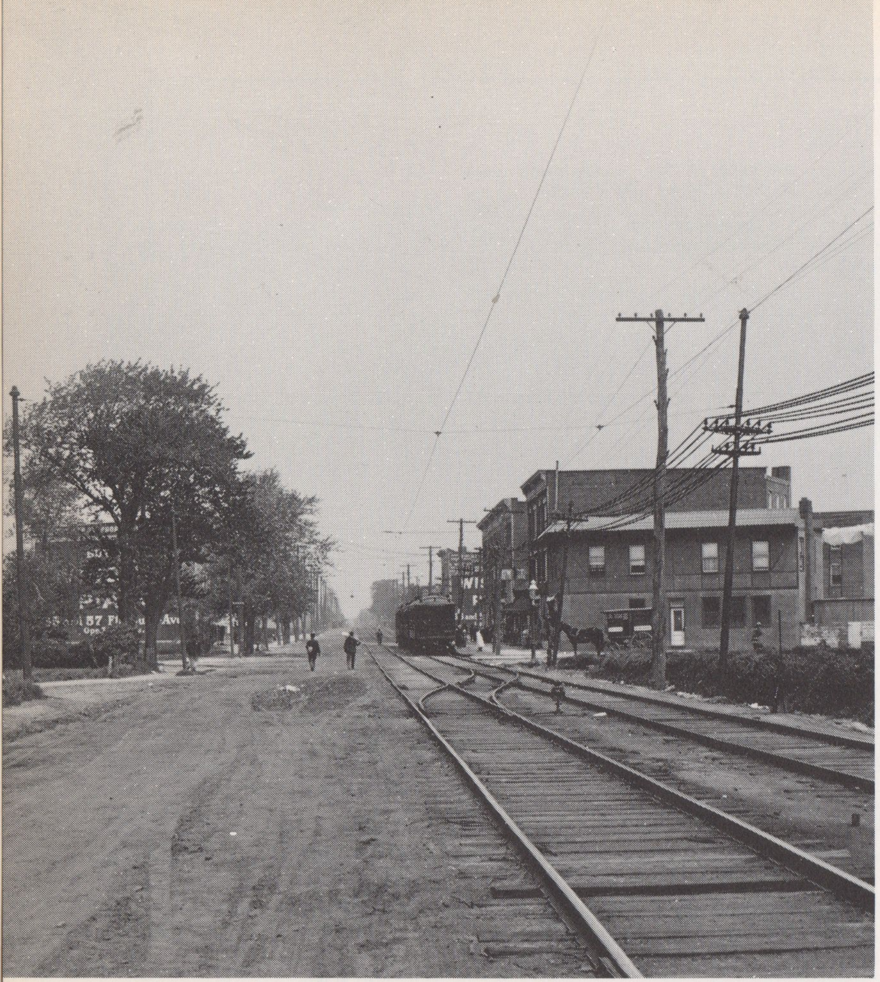
FROM 38TH ST. SOUTH TO THE CULVER TERMINAL TRACKS ON GRAVESEND AVE. USED BY BOTH ELEVATED AND STREET CARS.

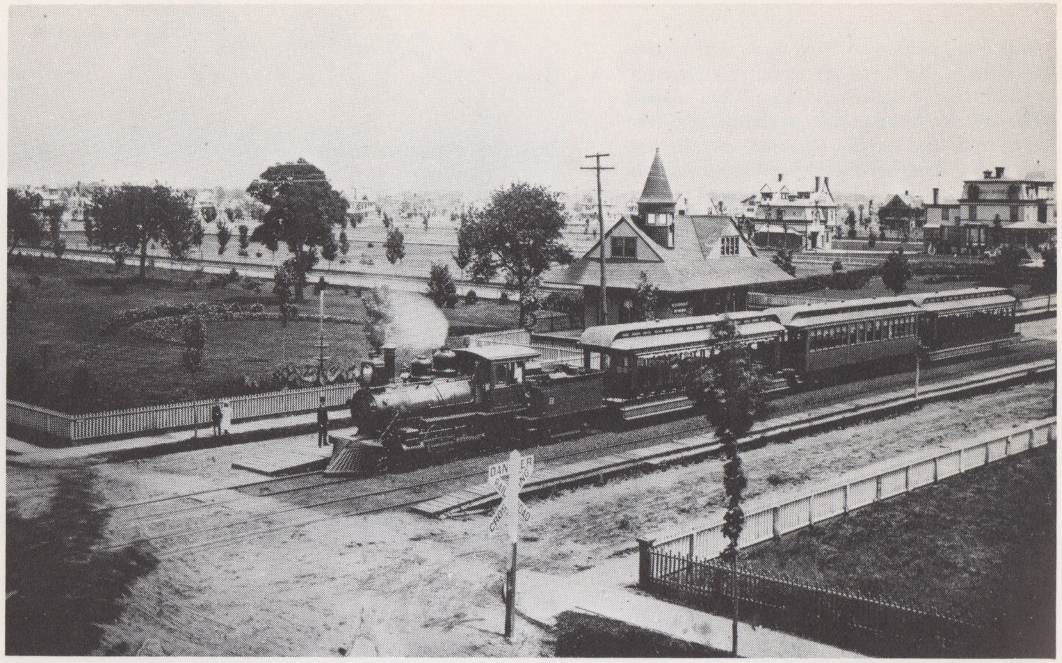
ALL TRACKS AT GROUND LEVEL, EXCEPT AS NOTED.

38TH STREET YARDS

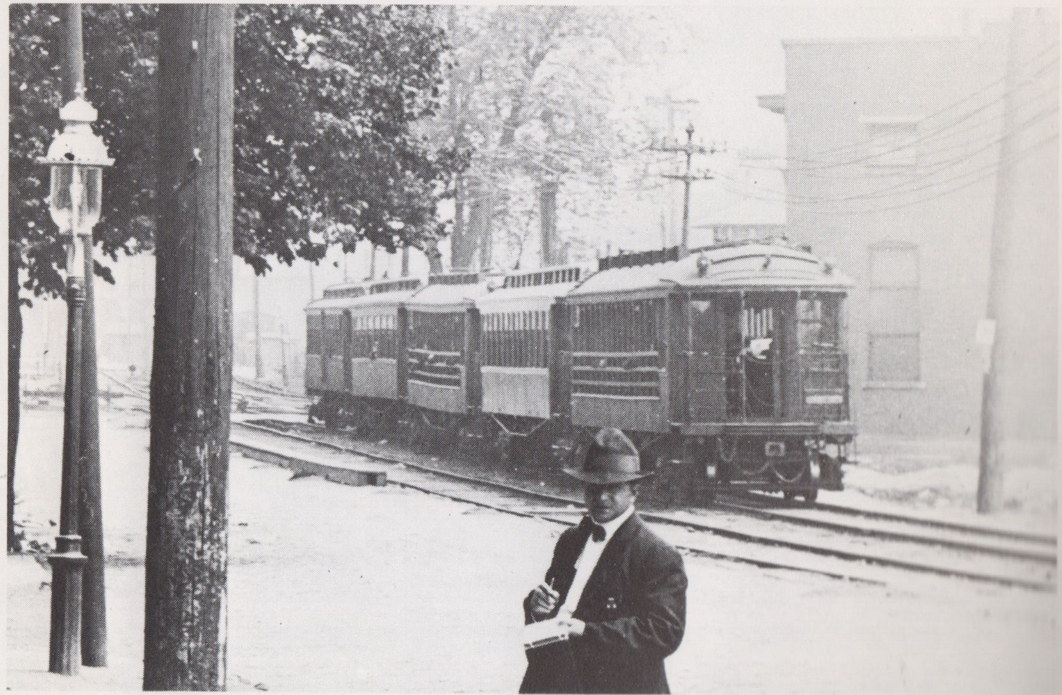
SIDINGS: 12,538 FT.

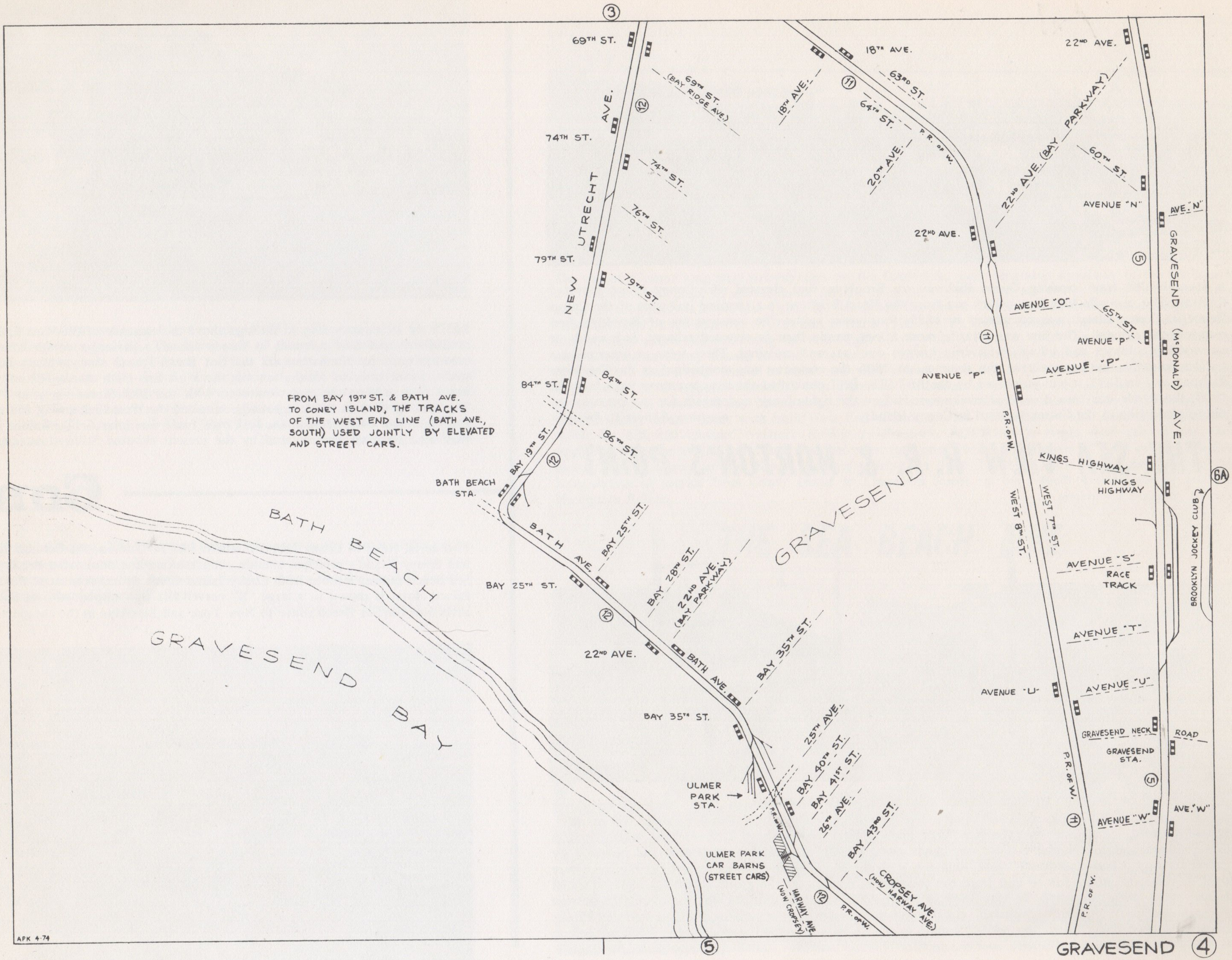
KENSINGTON ③





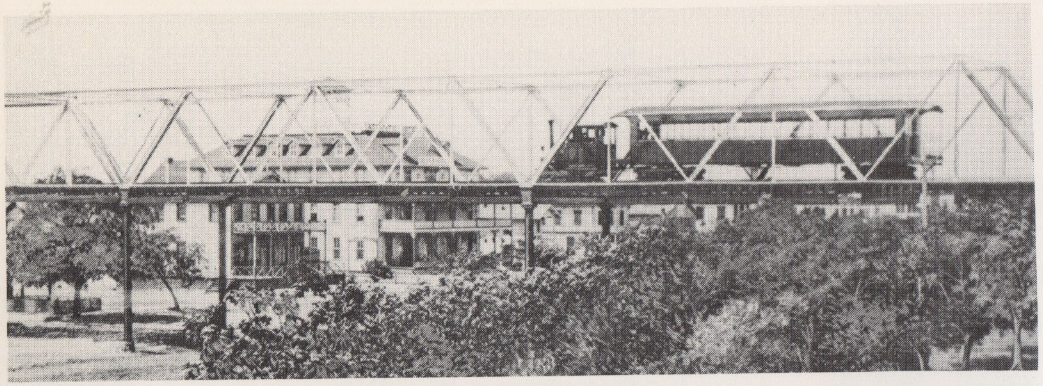
TOP LEFT: An inbound West End train stops at 74th Street and New Utrecht Avenue on May 8, 1914. New Utrecht Avenue was only a dirt road then, but times were already changing. By the end of 1916, the West End line was elevated and the trolley tracks were in the center of a paved roadway. *courtesy Robert L. Presbrey.* **TOP RIGHT:** Bensonhurst-by-the-Sea station, near Bath Avenue and Bay Parkway around 1890, in the days of steam operation of the West End line. The line was electrified in 1893 with both el trains and streetcars utilizing the tracks until 1916, when a new elevated structure was constructed several blocks to the north. Streetcars continued to operate on Bath Avenue until 1948. *New York Historical Society.* **BOTTOM RIGHT:** A five-car West End train approaches Bath Junction on an inbound trip from Coney Island. In 1914 New Utrecht Avenue was gas lit and surface transportation was powered by electricity. Today, electricity lights the streets, while most surface vehicles are powered by gasoline. *courtesy Robert L. Presbrey*





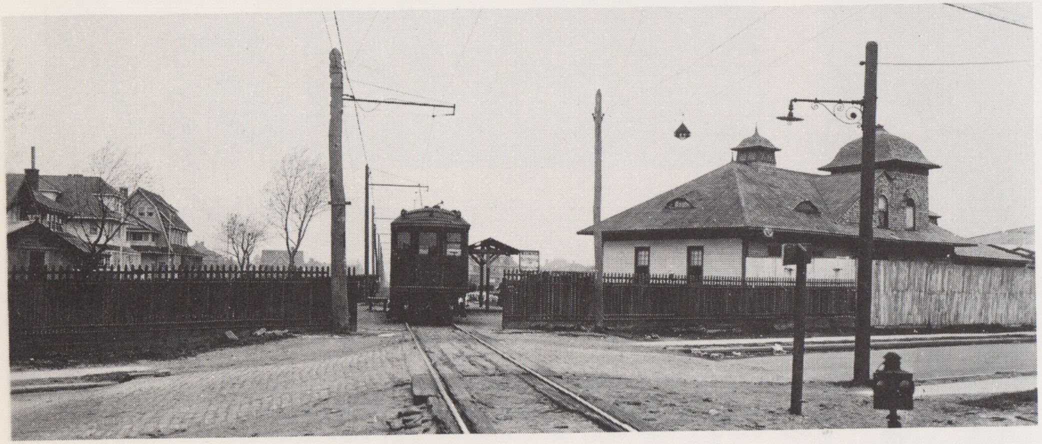
FROM BAY 19TH ST. & BATH AVE. TO CONEY ISLAND, THE TRACKS OF THE WEST END LINE (BATH AVE., SOUTH) USED JOINTLY BY ELEVATED AND STREET CARS.

GRAVESEND ④

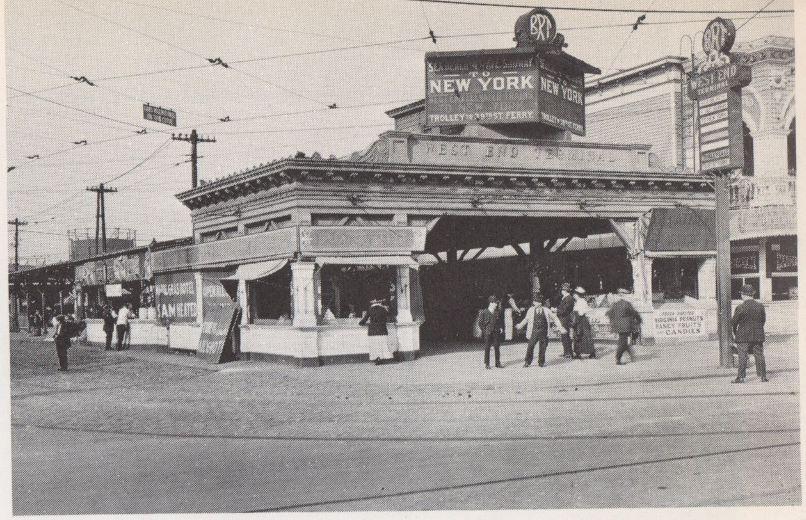


A steam-hauled train crossing Ocean Parkway on Brooklyn first elevated, the Coney Island Elevated Railway. The one-mile long line, which ran from the Hotel Brighton to a terminal just west of the Culver Depot in Coney Island, was completed in 1881, four years before the construction of Brooklyn first conventional elevated. The line was actually more a long trestle than an elevated railway, as it was built on wooden columns and pilings, with iron bridges only at road crossings. There were no intermediate stations and the line ran only in the summer. In 1886 the company was reorganized as the Sea View Railroad and in 1897 it was purchased by the BRT. The BRT electrified the line, but three years later, in 1900, the trestle was torn down and tracks were laid on the right-of-way underneath for the extension of the Brighton line to the Culver terminal in Coney Island. *courtesy Robert L. Presbrey*

THE SEA VIEW R. R. & NORTON'S POINT



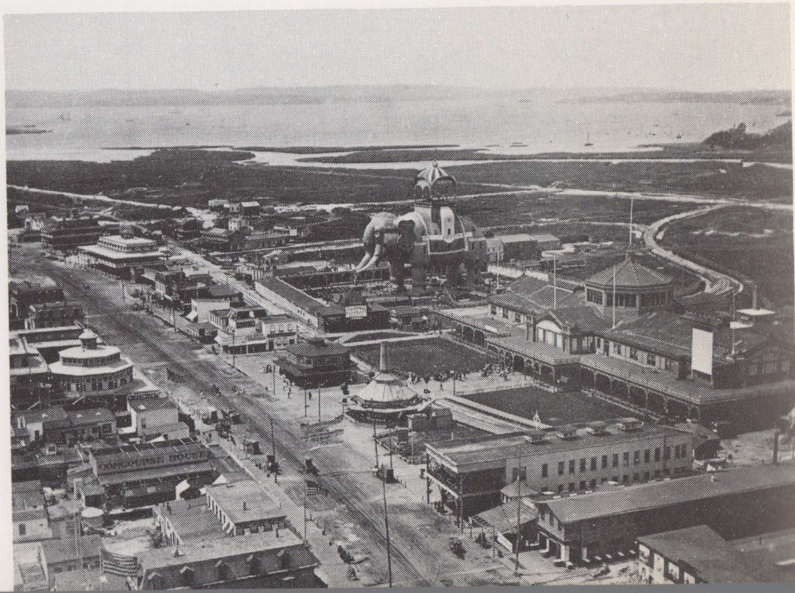
An eastbound el train at West 37th Street on the Norton's Point Line in 1919. Norton's Point was primarily a streetcar line but its history and operation were intertwined with Brooklyn's elevated railways. In 1879 Andrew R. Culver built the New York and Coney Island Railroad between the Culver Depot in Coney Island and the Norton's Point steamboat pier. Shortly thereafter it was leased and operated by Culver's Prospect Park and Coney Island Railroad. With the electrification of the line in 1899, el cars were used to transport passengers to and from the steamboats docking at the point. Streetcars replaced the el trains from 1908 or 1910. In May 1918, when the line's eastern terminal was moved to the present Stillwell Avenue rapid transit terminal, el cars were returned to service on the segment between Coney Island and West 37th Street, the end of double track. El car operation lasted only for 1½ years and in October 1919 streetcars again took over the service. *courtesy Donald W. Harold*

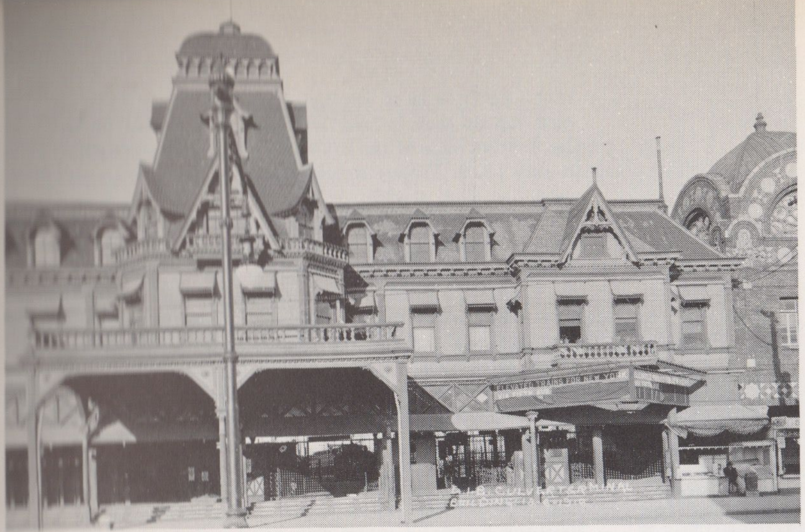


LEFT: In 1916, according to the sign above the entrance of the West End terminal at Stillwell and Surf Avenues in Coney Island, a passenger could either board a subway train to Manhattan via the Sea Beach-Fourth Avenue-Manhattan Bridge route, an el train to Manhattan via the West End-Fifth Avenue-Brooklyn Bridge route or a trolley car that connected with the 39th Street Ferry to Manhattan. The curving track in the foreground connected the West End trolley route with the Sea Gate line on Surf Avenue. Just over two years later, in December 1918, the West End terminal was replaced by the present elevated Stillwell Avenue terminal

Coney

Two aerial views of Coney Island in 1889. LEFT: "Jumbo, the Colossal Elephant," was Coney Island's principal amusement attraction and dominated the skyline. The Sea Beach railway's route from Coney Island Creek to its terminal at the Sea Beach Palace Hotel is shown as a large "S" curve. The sign suspended over Surf Avenue advertises the Sea Beach route to New York and Brooklyn as the cheapest (25 cents





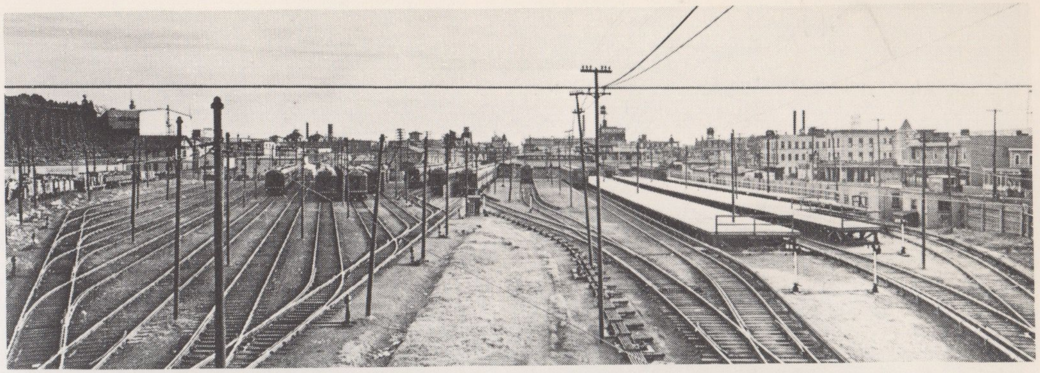
which still serves all four Coney Island routes. RIGHT: The outside of the Culver terminal on December 6, 1916. The lower part of the marquee, which stated that Brighton el cars ran from Coney Island to New York via Fulton Street, had been covered over for almost two months as Brighton el trains had been cut back to Brighton Beach, so that construction of the present elevated structure to Stillwell Avenue could proceed. The structure was completed in 1919, with Brighton trains extended to Stillwell Avenue on May 30, 1919 and Culver trains eleven months and one day later.

both courtesy Robert L. Presbrey

Island

round-trip) and quickest. The West End line can be seen in the center of the photo. In the background is Lower New York Bay and the Narrows. RIGHT: This view eastward toward Brighton and Manhattan Beaches shows Brooklyn's first elevated line, the Coney Island Elevated Railway.

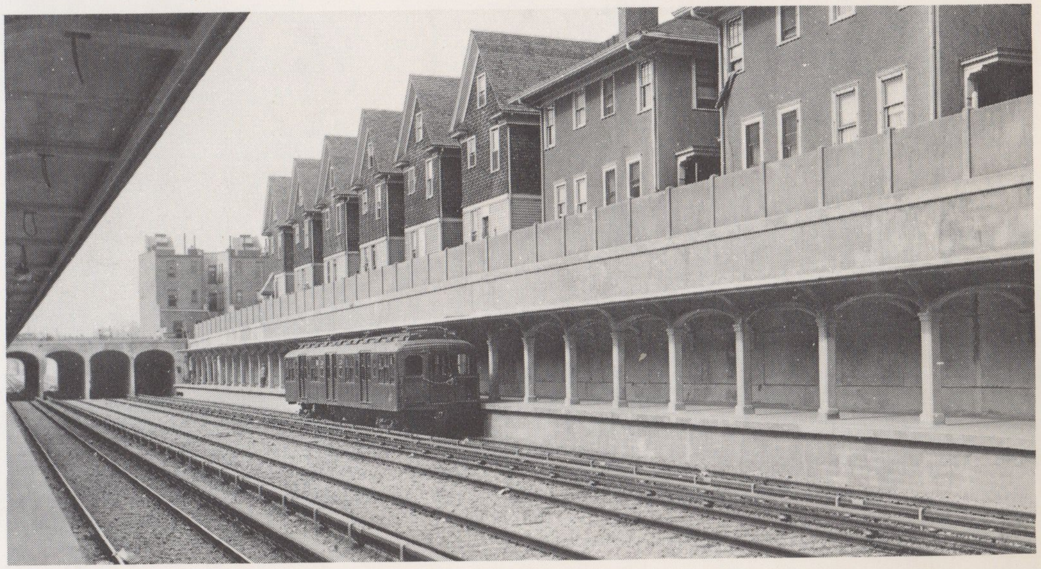
both New York Historical Society

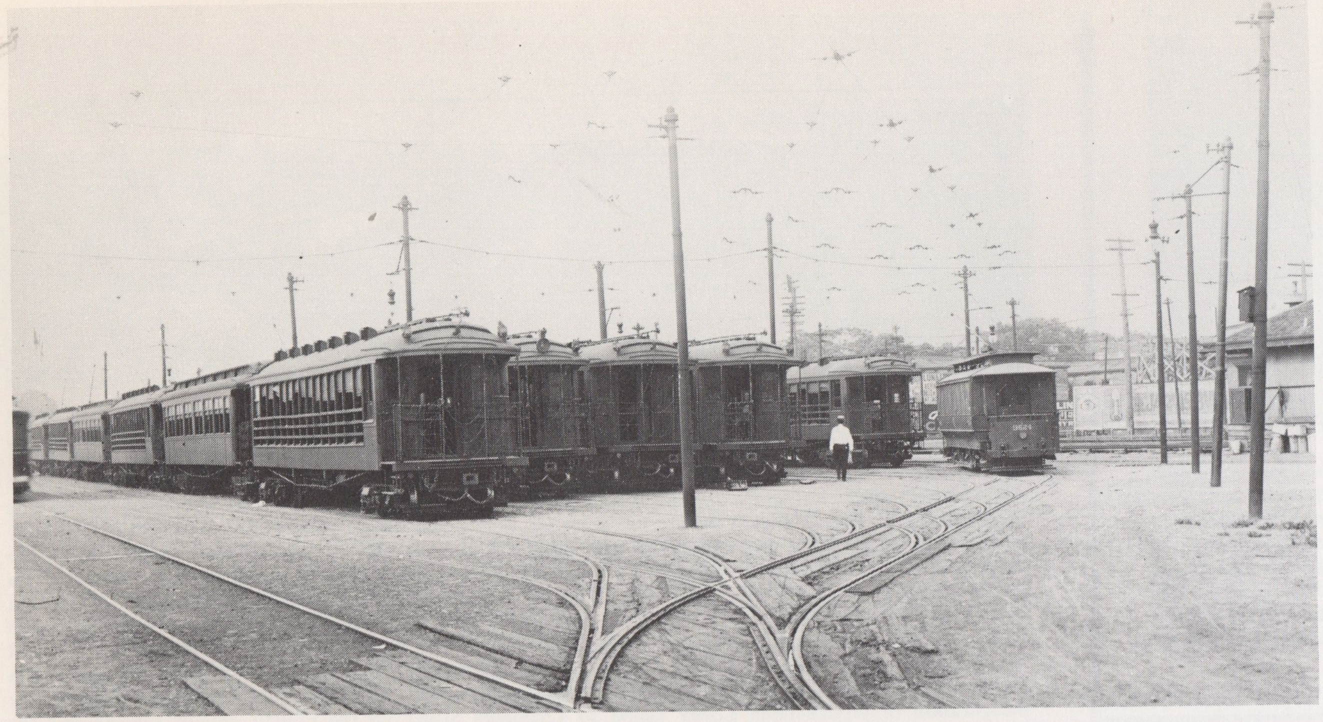


The use of 67-foot long steel subway cars on the four-track, grade-separated speedway of the Sea Beach line was the final phase of development for the most direct route between Coney Island and Manhattan. Since its construction in the late 1870s the Sea Beach line saw the operation of steam trains (1879-1897), streetcars (1897-1907 and 1913-1915) and el trains (1907-1913), finally culminating with the operation of subway cars, which still run along the same right-of-way today. Prior to 1909 the Sea Beach line had its own terminal at Coney Island, located between the Culver and West End terminals. TOP: This 1915 view of the West End Coney Island terminal and yard differs from the 1910 track plan mainly due to the construction of a temporary terminal with high-level platforms for the new steel subway cars of the Sea Beach line. Sea Beach subway trains, using third rail for current collection, shared the access trackage and crossed Coney Island Creek with both West End el cars and BRT streetcars, which used trolley poles to reach the 600-volt current. *courtesy Robert L. Presbrey*. BOTTOM: A single steel subway car, still equipped with the trolley poles used for test operation prior to the installation of third rail on the Sea Beach line, is shown at the Kings Highway station on June 11, 1915, just eleven days before the inauguration of service from Coney Island to Chambers Street via the Fourth Avenue subway and the Manhattan Bridge.

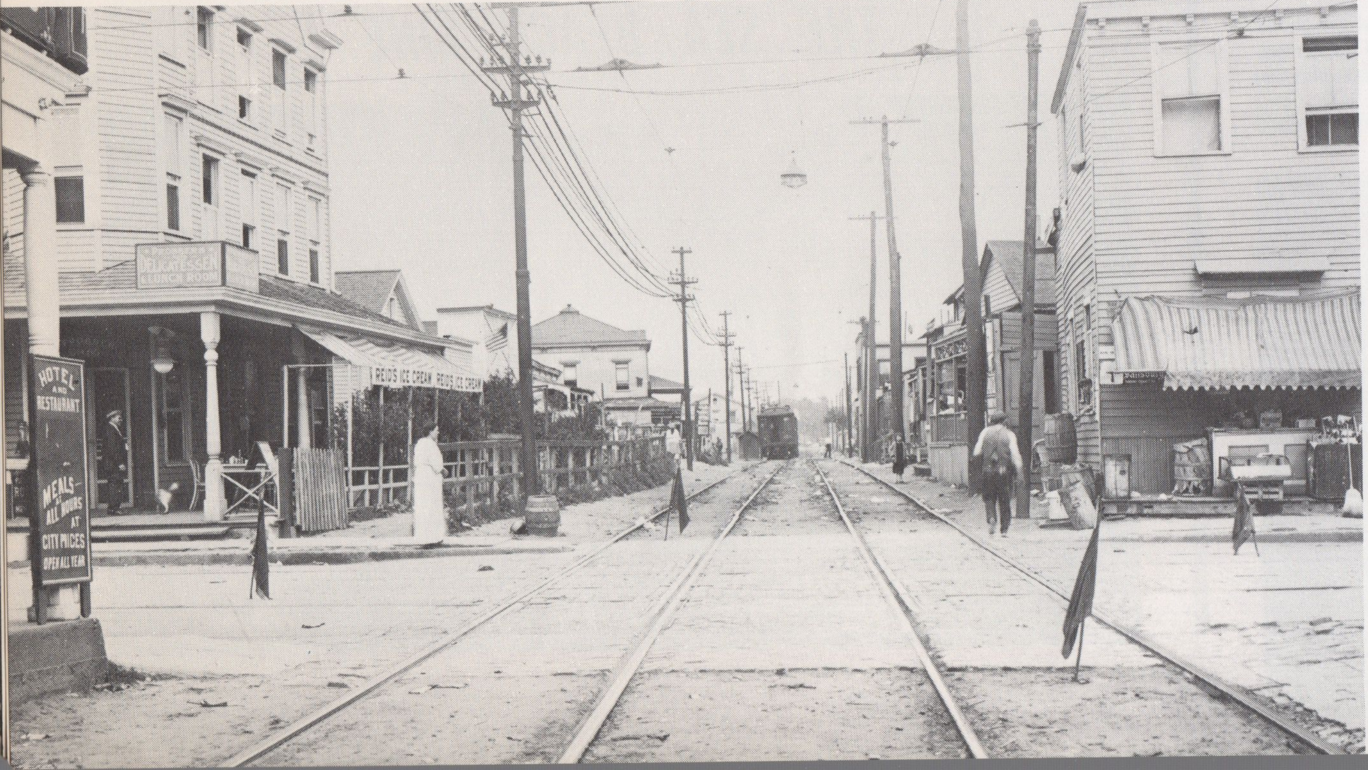
courtesy Edward B. Watson

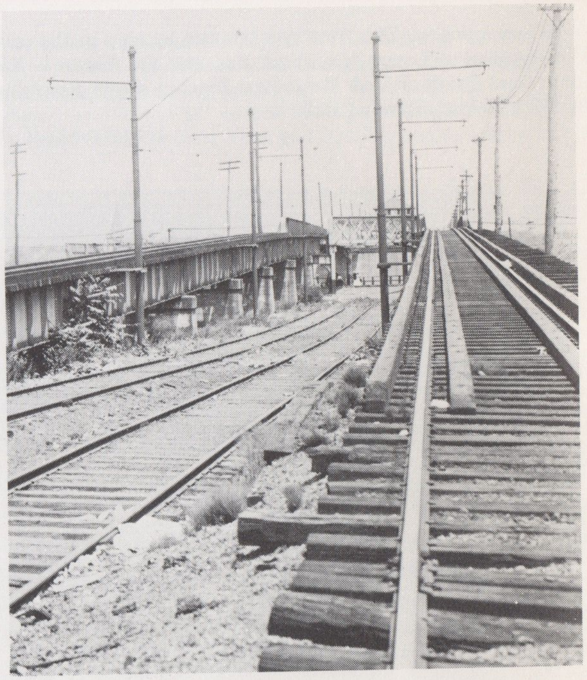
THE SEA BEACH LINE

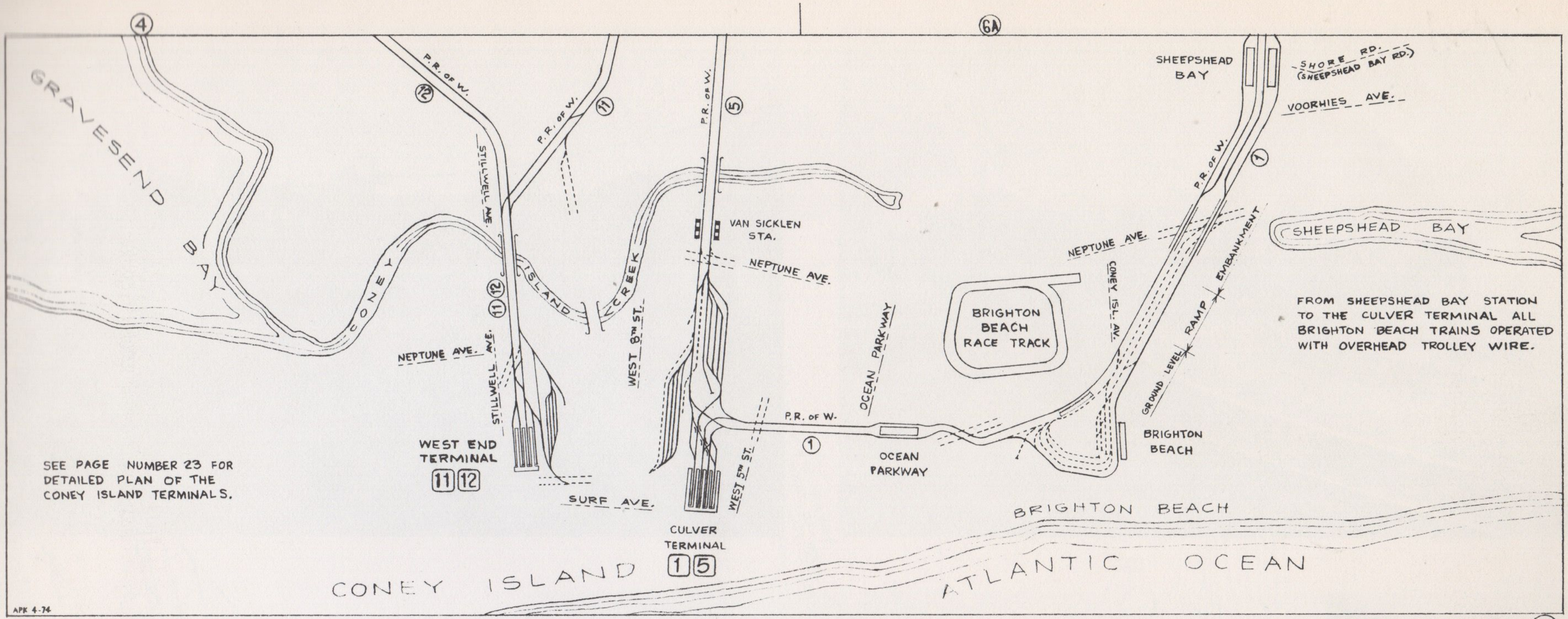




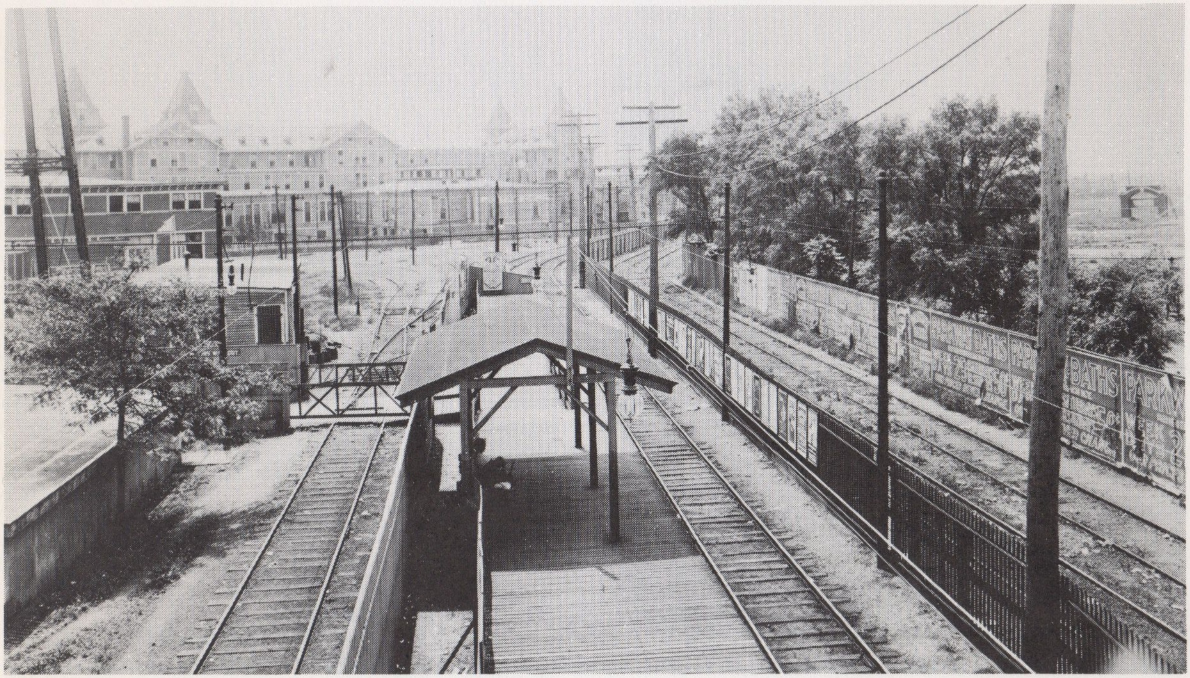
TOP LEFT: A large number of el cars in the Culver yard can be seen in this view looking northeast from the western edge of the Culver terminal streetcar loops in July 1916. Trolley wrecker 9624 is available to respond to any mishap on the BRT surface system. **BOTTOM LEFT:** A Brighton train, en route to the Culver terminal at Coney Island, approaches West 5th Street on July 12, 1916. Brighton trains began using the Culver terminal in 1903, operating through this back alley right-of-way until the present elevated structure was placed into service between 1917 and 1919. **BOTTOM RIGHT:** Looking north along the Brighton line right-of-way just south of Neptune Avenue in July 1916. The center tracks were used by summer-only shuttle streetcars of the Sheepshead Bay-Brighton Beach line, which turned east toward Sheepshead Bay at the underpass, joining the Sea Gate trolley line. The outside tracks began their climb onto the Brighton embankment at this point and divided into four tracks just north of the underpass. **OPPOSITE PAGE:** Looking southwest toward the Hotel Brighton at the Brighton Beach station of the Brooklyn elevated system in July 1916. The southbound el platform is shown at center. On the far right is the double-track right-of-way of the former Coney Island and Brooklyn Railroad streetcar lines, which operated to Coney Island via Coney Island Avenue. The track at left was used by the summer-only Sheepshead Bay-Brighton Beach shuttle line, which looped counter-clockwise at Brighton Beach. *all courtesy Robert L. Presbrey*

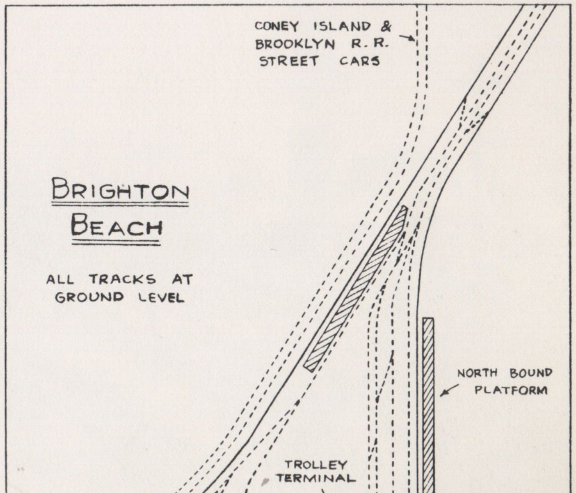

DELICATESSEN
LUNCH ROOM
REID'S ICE CREAM REID'S ICE CREAM
HOTEL AND RESTAURANT
MEALS AT ALL HOURS AT CITY PRICES
OPEN ALL YEAR



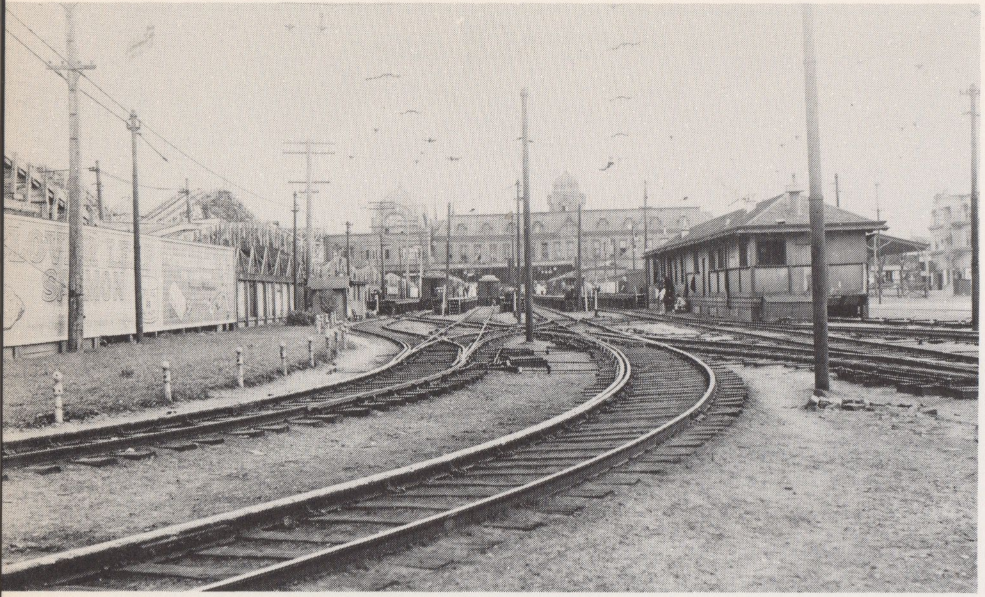


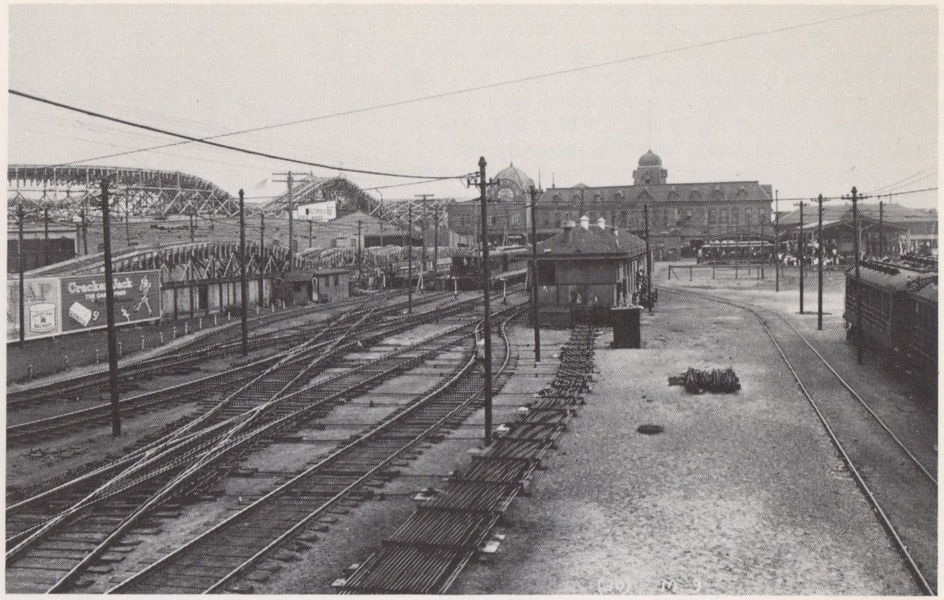
CONEY ISLAND ⑤

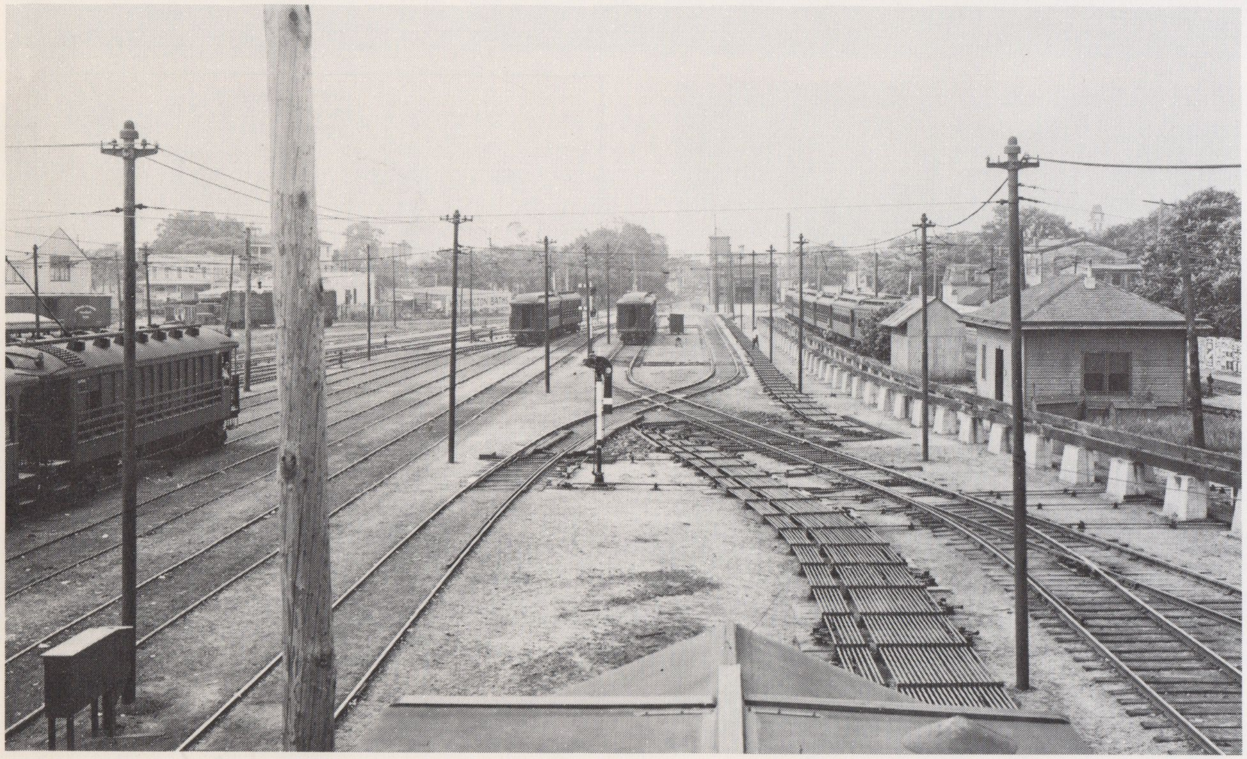




CONEY ISLAND & BROOKLYN R.R. STREET CARS
BRIGHTON BEACH
ALL TRACKS AT GROUND LEVEL
NORTH BOUND PLATFORM
TROLLEY TERMINAL
CONEY ISLAND

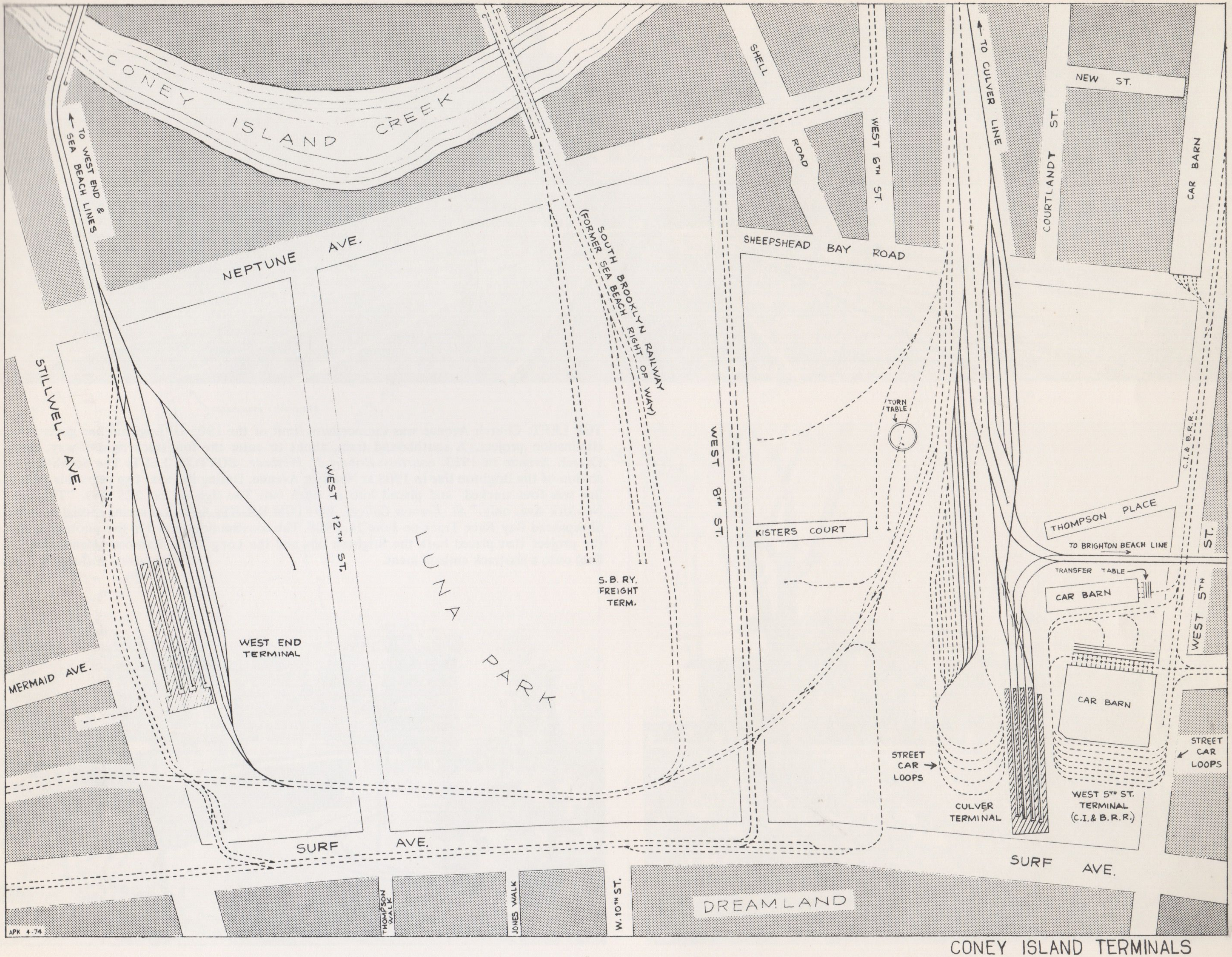




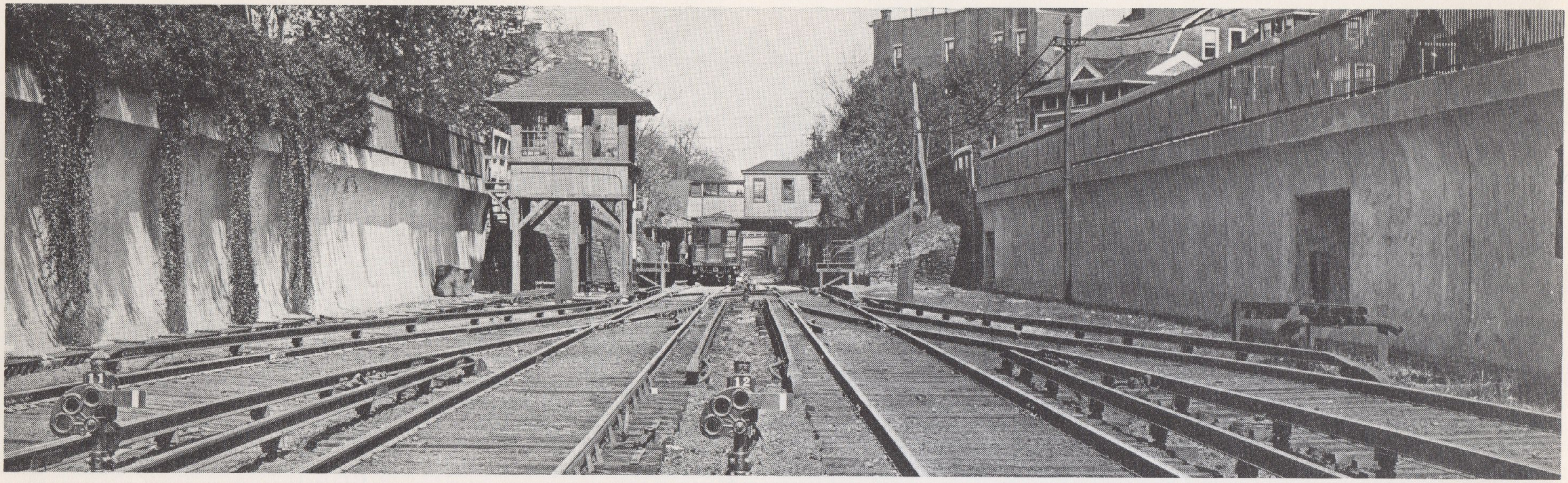


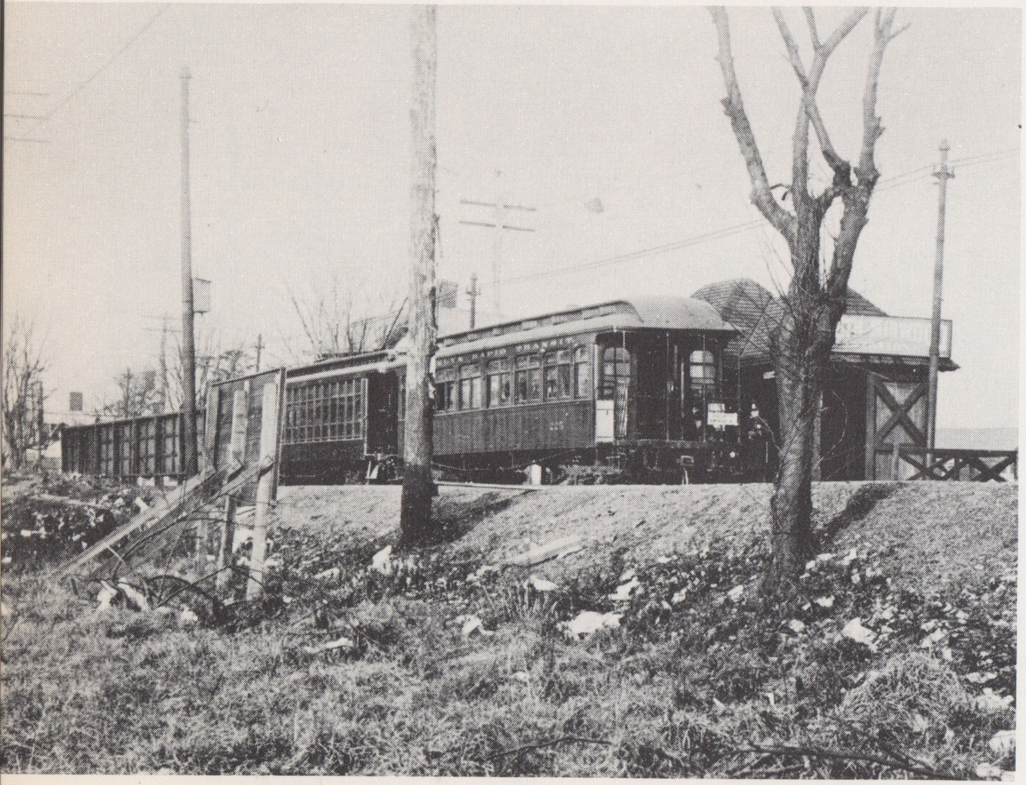
TOP PHOTOS: The Culver terminal was located alongside one of the many roller coasters that dotted the Coney Island landscape. These 1916 views show the five high-level platforms with four stub-end tracks for Culver and Brighton el trains at left, and the five-track streetcar loop at right. Brighton trains entered the Coney Island station on the pair of tracks that turn off to the left while Culver trains and streetcars entered the terminal directly from the north. **LEFT:** Looking north between the two yards of the Culver terminal in 1916. The northbound trolley track crosses the southbound el track at grade in the center of this photo. The rods linking the mechanical interlocking with the switches are more plentiful than the tracks.

all courtesy Robert L. Presbrey

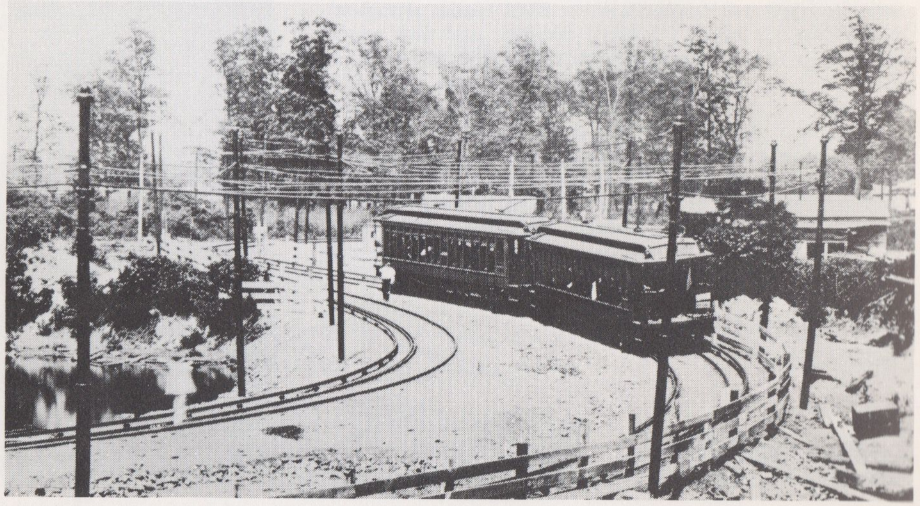


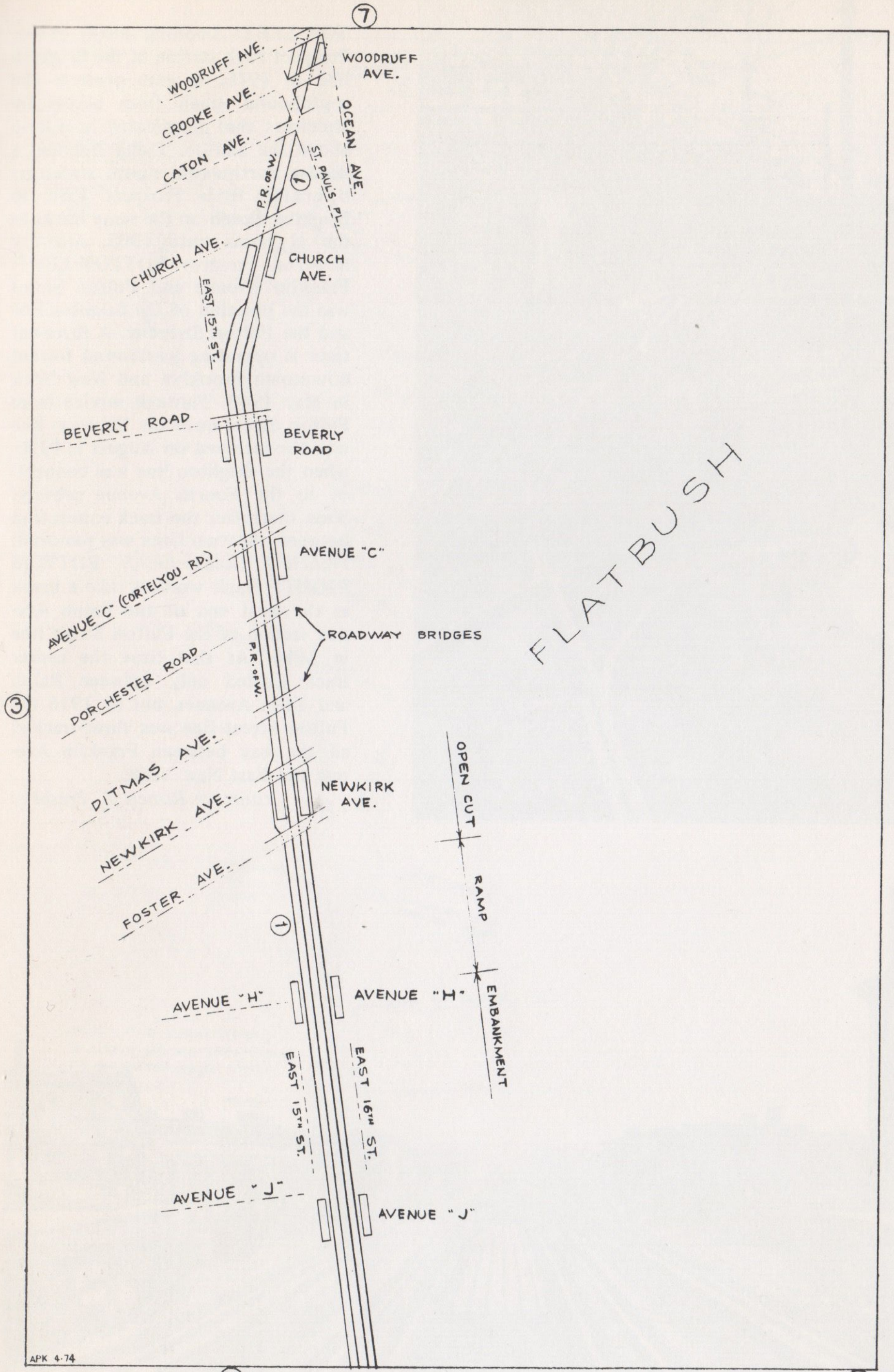
CONEY ISLAND TERMINALS



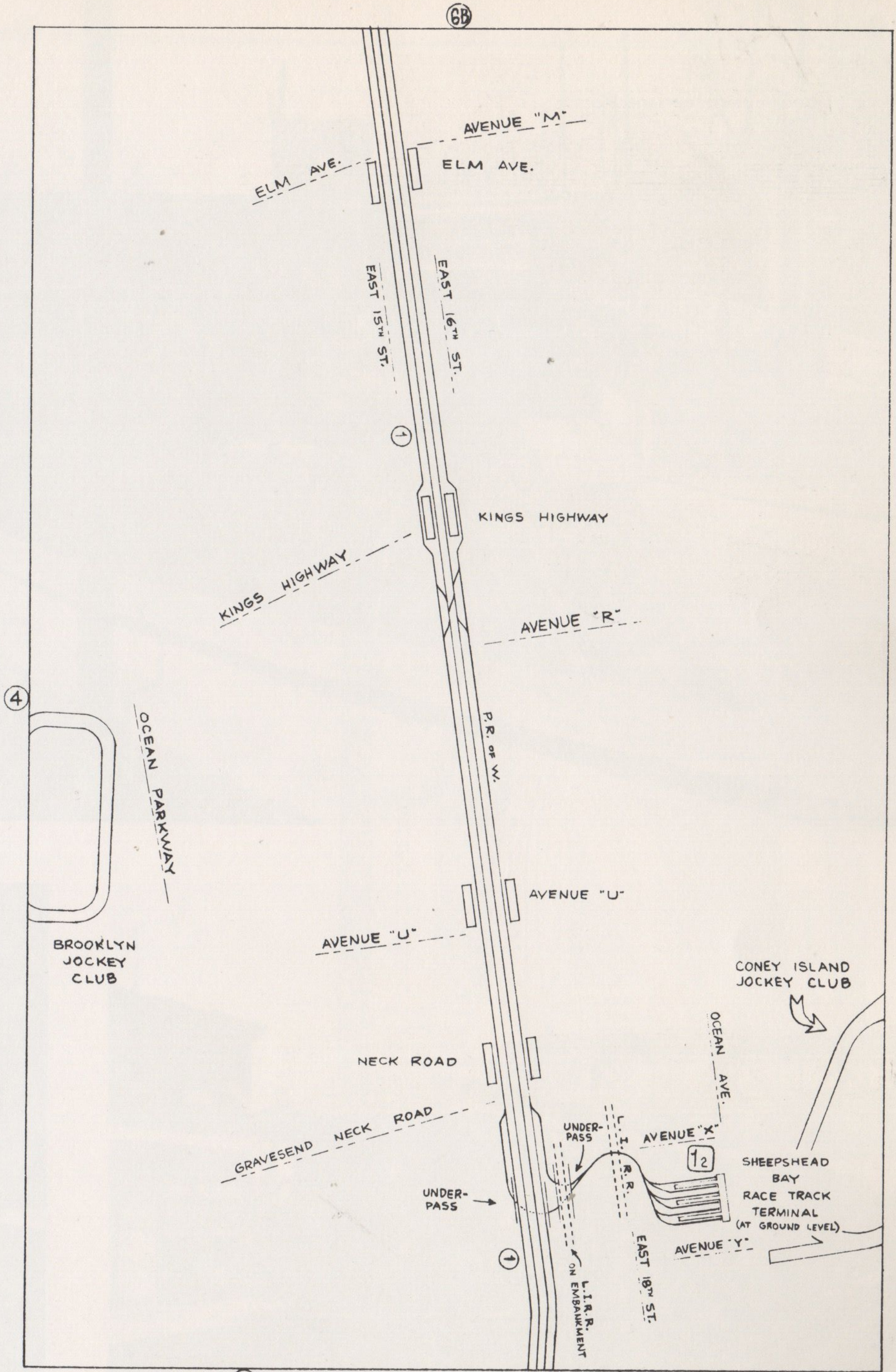


TOP LEFT: Church Avenue was the northern limit of the 1905-10 Brighton line grade crossing elimination project. A southbound train, about to enter the four-track right-of-way, stops at Church Avenue in 1913. *courtesy Robert L. Presbrey.* **BOTTOM LEFT:** The South Midwood station of the Brighton line in 1905 at Newkirk Avenue. During the next five years this section of line was four-tracked and placed into an open cut. The sign on car 225 says, "This car for Newkirk Ave. only." *St. Francis College.* **BOTTOM RIGHT:** A two-car racing special en route to Sheepshead Bay Race Track on June 24, 1908. The construction shown in this photo was part of the project that placed both the Brighton line and the Long Island Railroad (Manhattan Beach line) onto a six-track embankment. *courtesy Edward B. Watson*

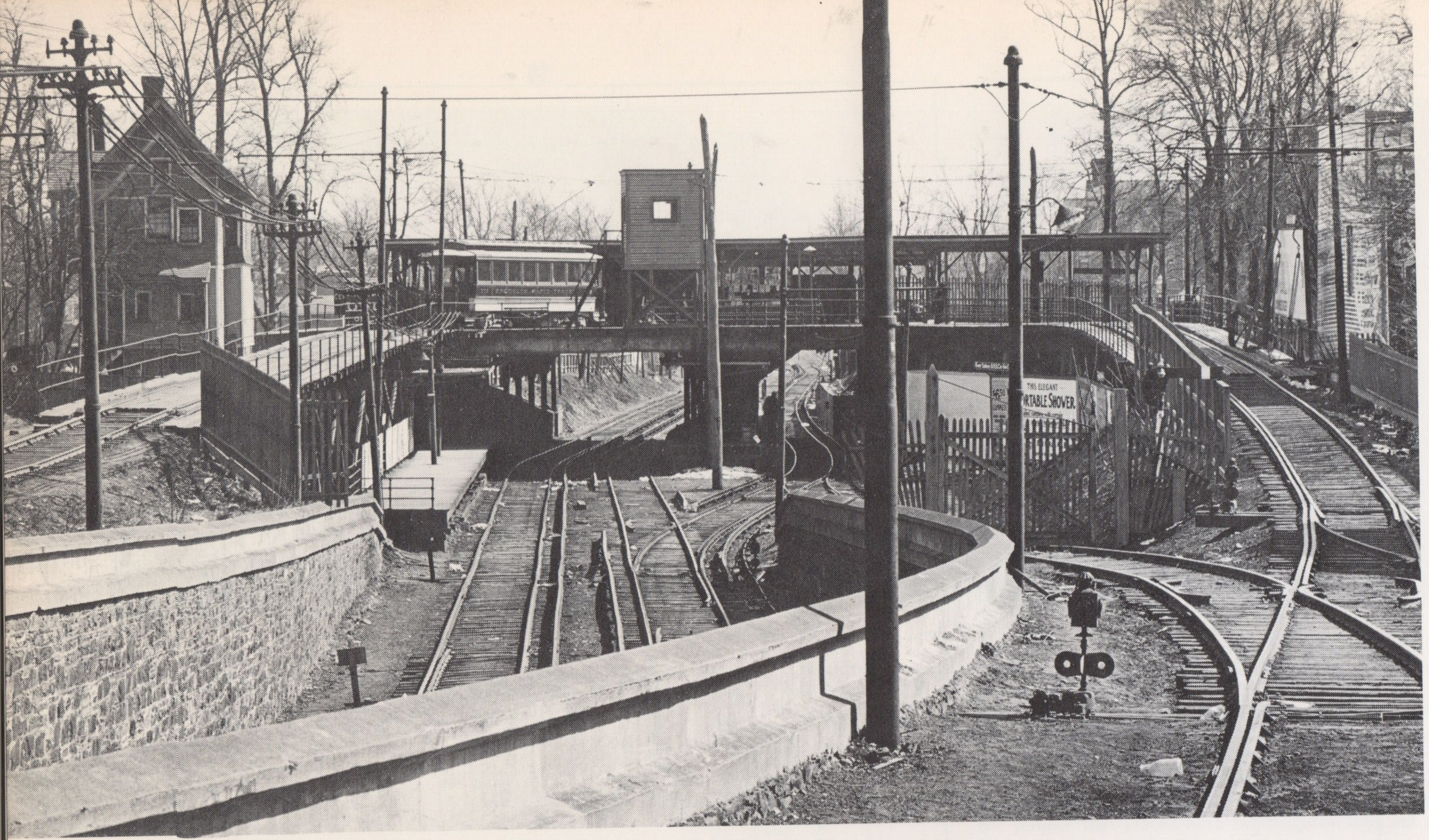




FLATBUSH 6B

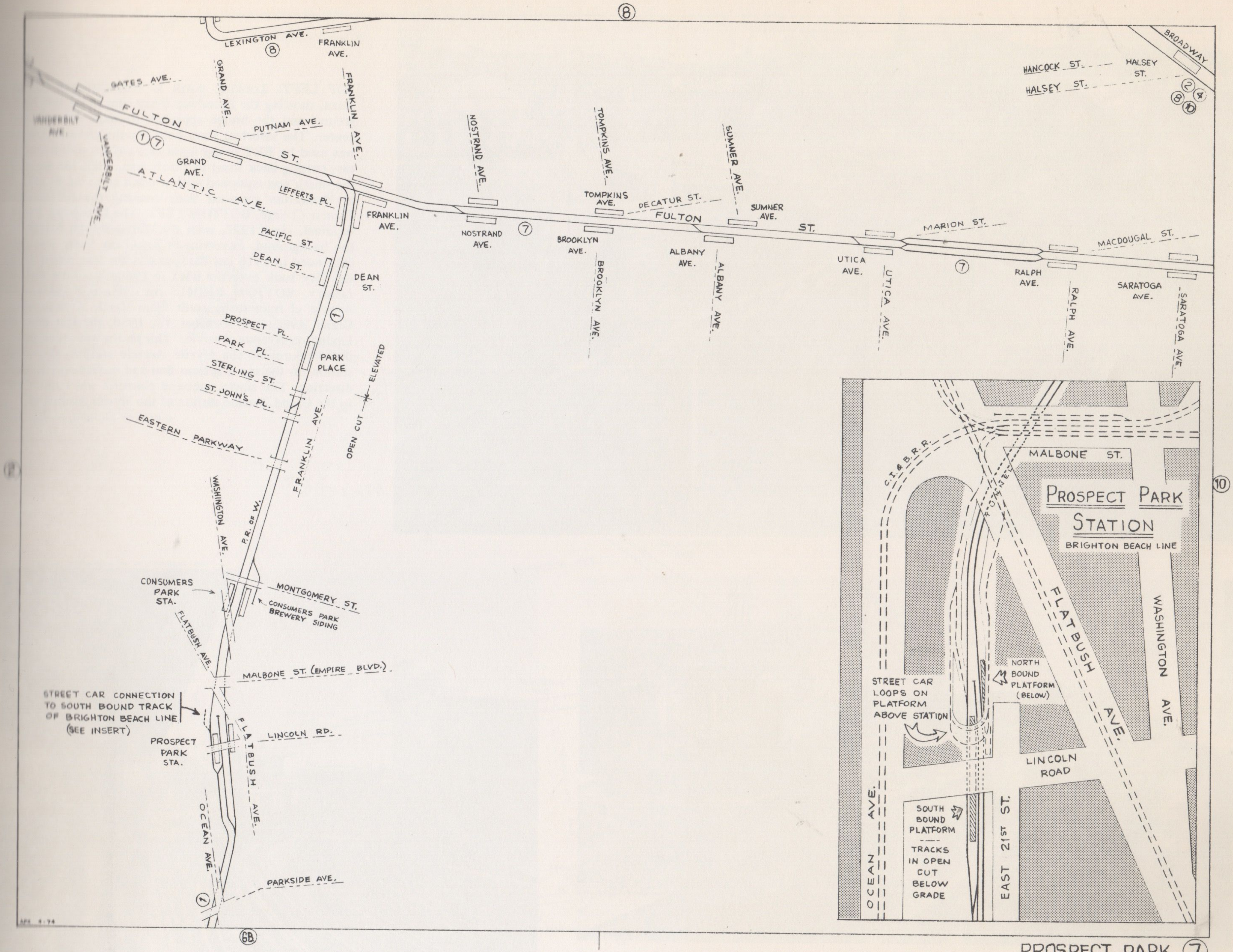


RACE TRACK 6A

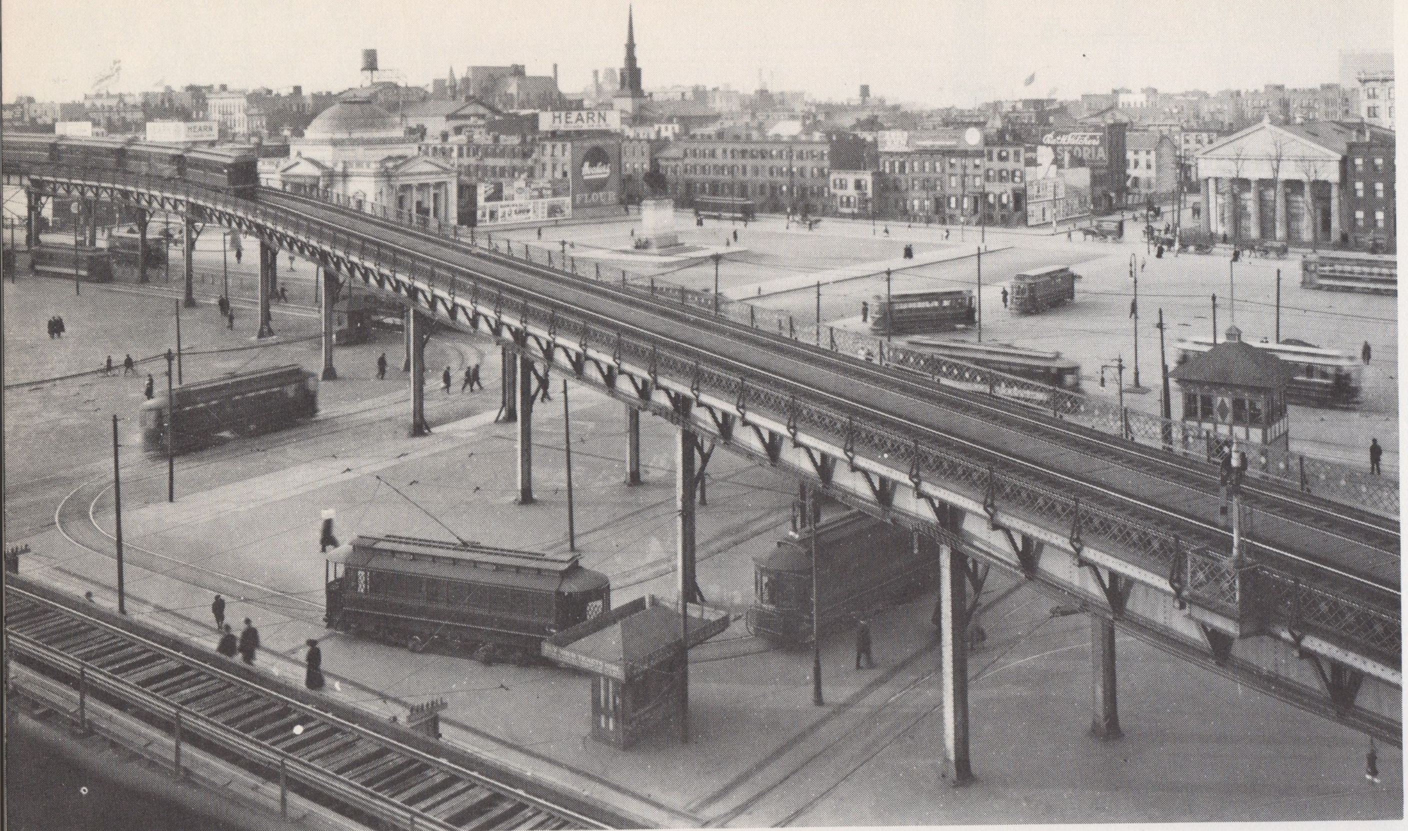


TOP LEFT: Looking south at the Prospect Park station of the Brighton line in 1916. A gate protects the southbound track from access by streetcars that terminated in a loop above the station. Using this and a similar northbound ramp, streetcars operated from Prospect Park to Brighton Beach on the same tracks as the el trains until 1905. *courtesy Robert L. Presbrey.* **BOTTOM LEFT:** Franklin Avenue and Fulton Street was the junction of the Brighton line and the Fulton Street el. A three-car train is operating westbound toward downtown Brooklyn and New York in May 1940. Through service from Fulton Street onto the Brighton line was discontinued on August 1, 1920, when the Brighton line was connected to the Fourth Avenue subway. Soon thereafter the track connection between the two lines was removed. *Francis J. Goldsmith, Jr.* **BOTTOM RIGHT:** Track workers take a break at the west end of the Ralph Avenue station of the Fulton Street line in 1914. At that time the center track existed only between Ralph and Utica Avenues, but by 1916 the Fulton Street line was three-tracked all the way between Franklin Avenue and East New York.

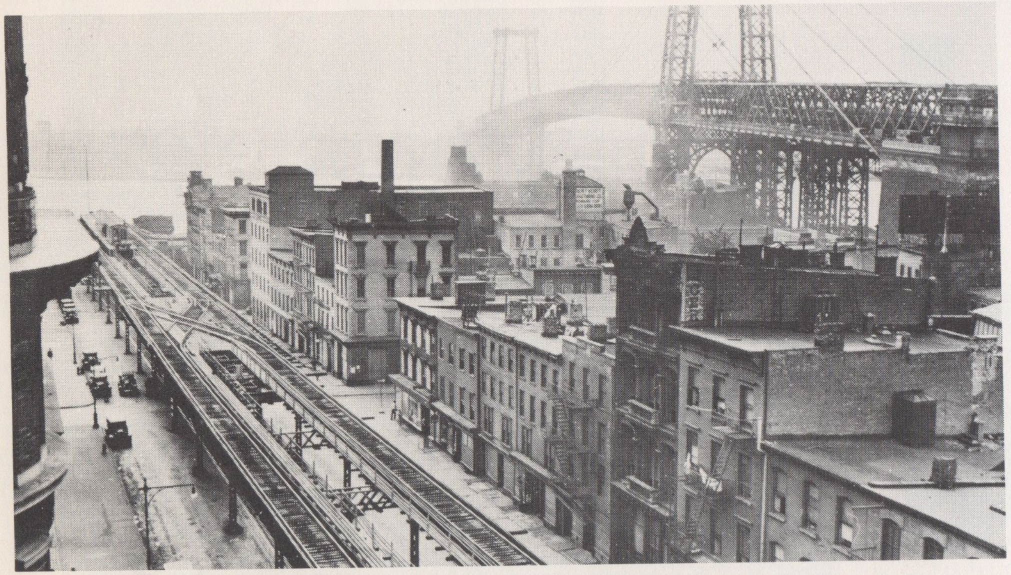
courtesy Robert L. Presbrey

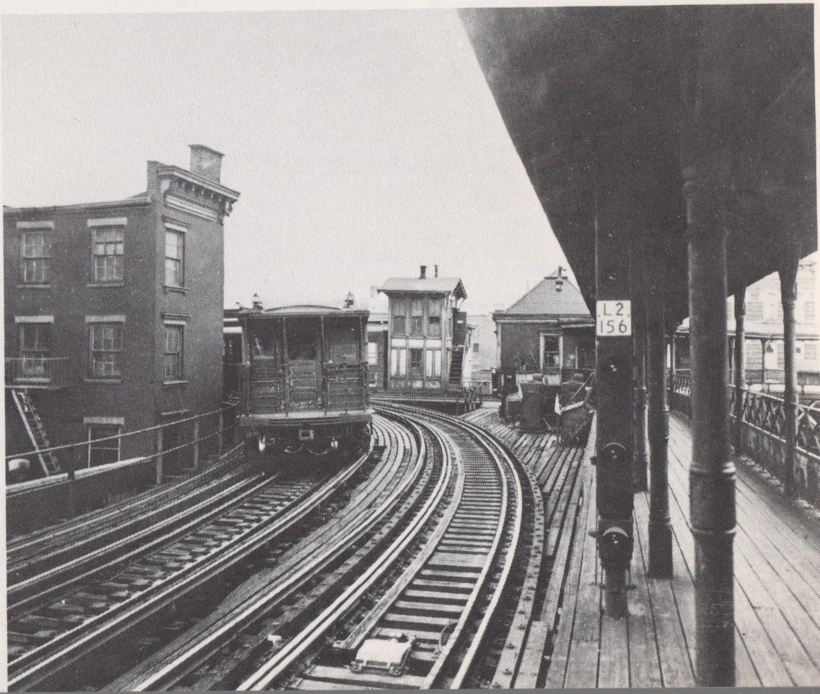


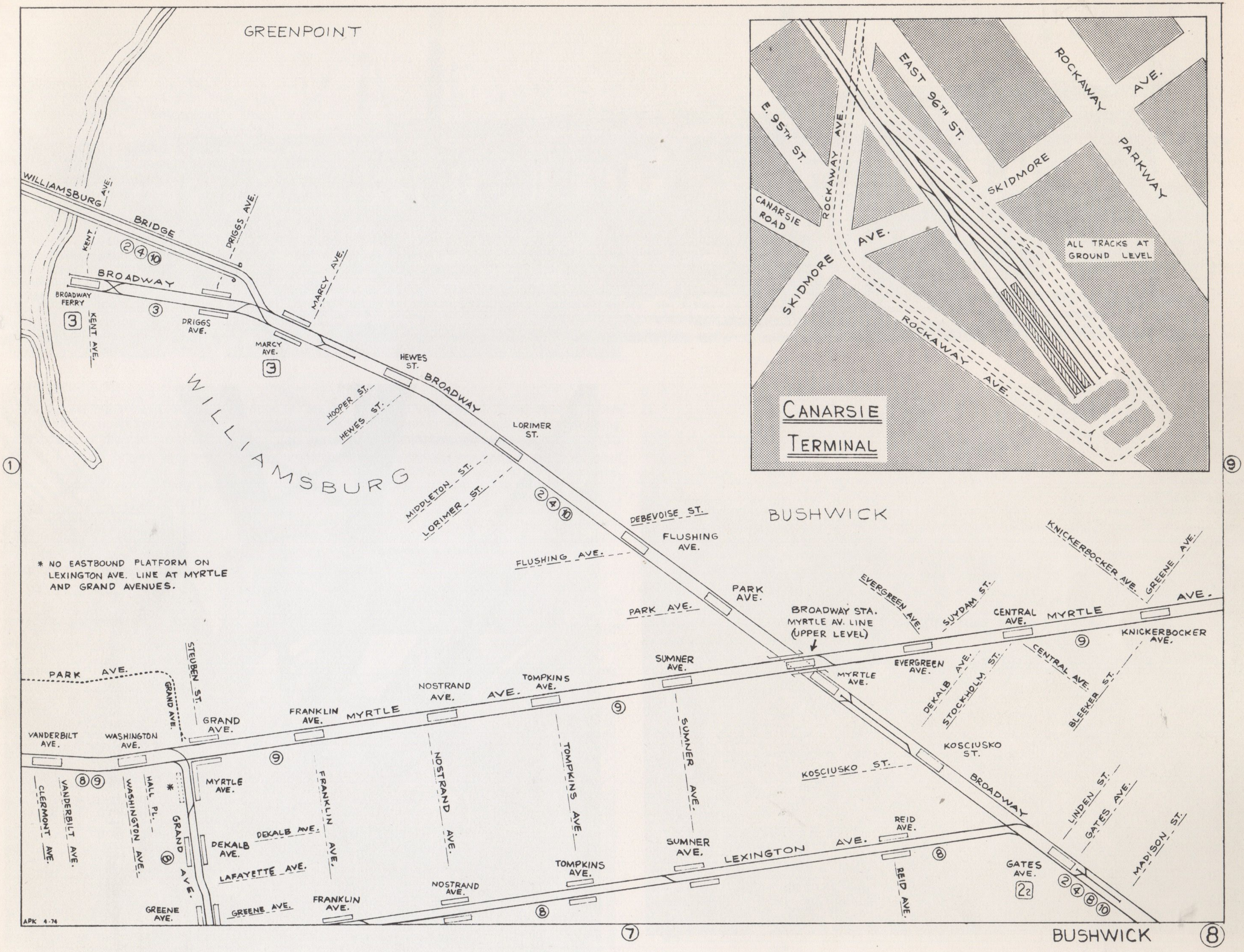
PROSPECT PARK ⑦



TOP LEFT: Looking north at Williamsburgh Bridge Plaza, showing the Broadway Ferry spur in the left foreground and the bridge approach trackage through the center. The streetcar loop between the elevated tracks was used by BRT bridge local cars and Brooklyn streetcars cutting back short of Manhattan, while the loop to the north was equipped with conduit and used by several Manhattan streetcar lines crossing the bridge. *St. Francis College.* **BOTTOM LEFT:** The Broadway Ferry terminal, circa 1920, with the Williamsburgh Bridge in the background. El service to Broadway Ferry was discontinued in 1916 but the spur was not torn down until the City took over the BMT in 1940. *Brooklyn Public Library.* **BOTTOM RIGHT:** An outbound Lexington Avenue el train turns south from Myrtle Avenue onto Grand Avenue on October 13, 1950, the last day of Lexington Avenue el service. This photo was taken from the platform of the Myrtle Avenue station, the only station on the rapid system that had service only in one direction. The single, inbound platform was connected to the Grand Avenue station of the Myrtle Avenue el.
courtesy Donald W. Harold

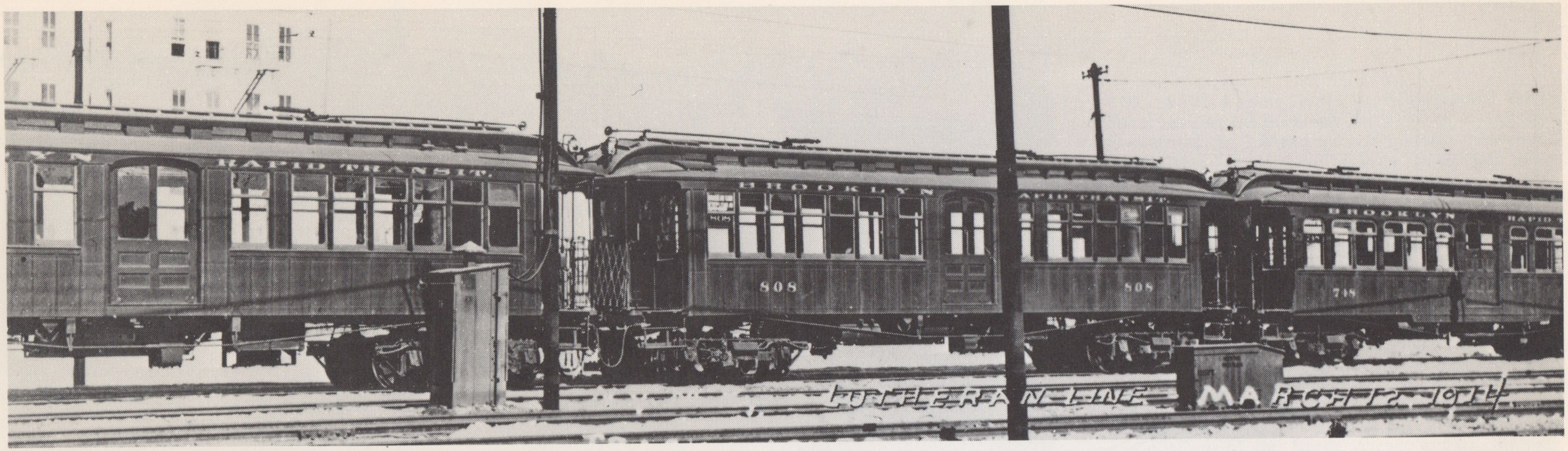


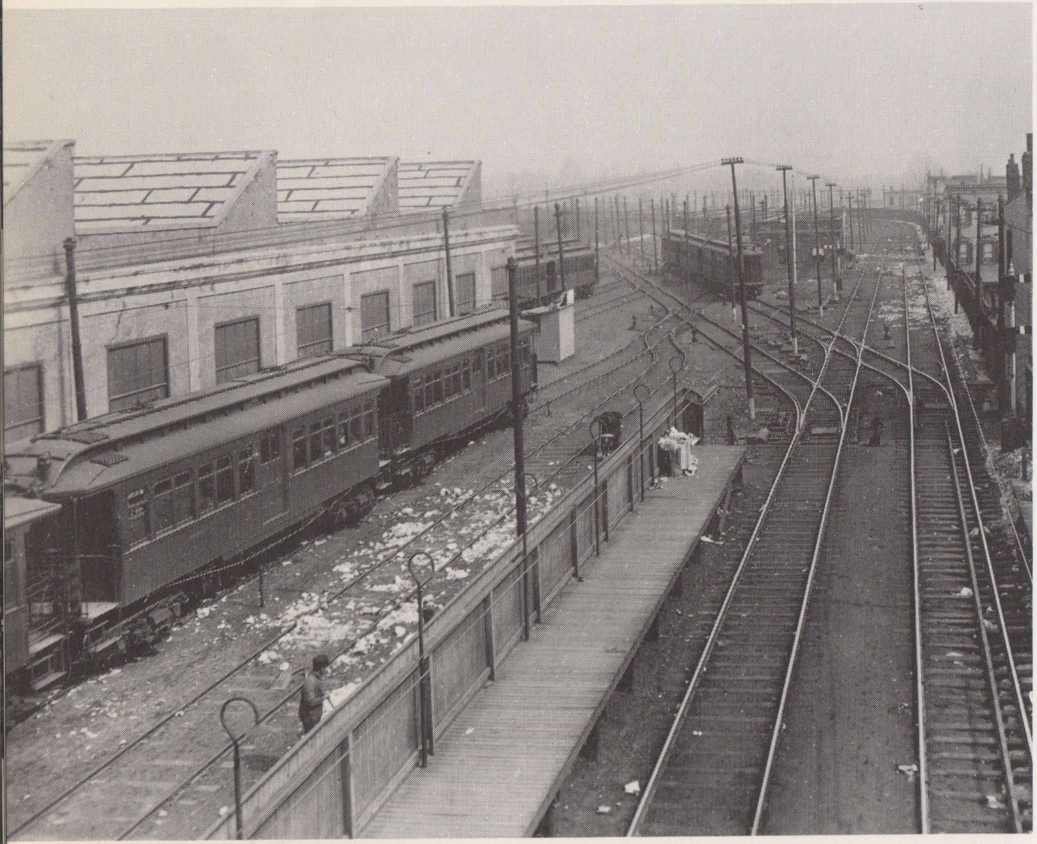


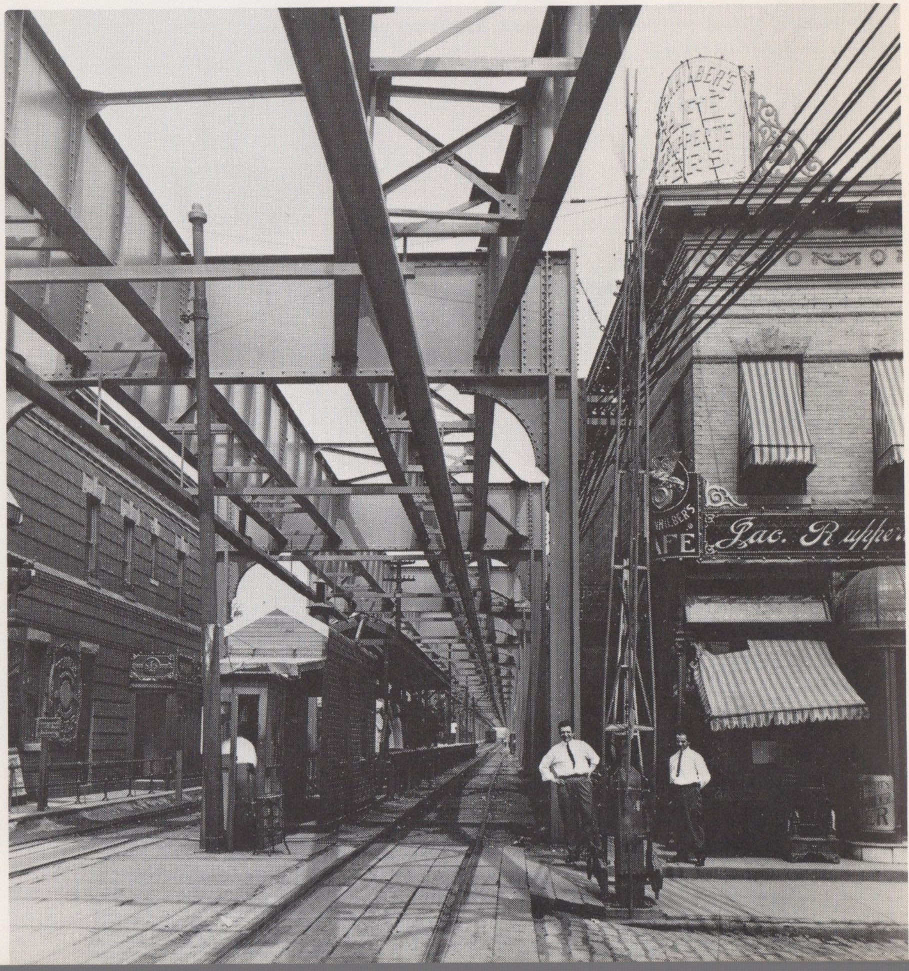


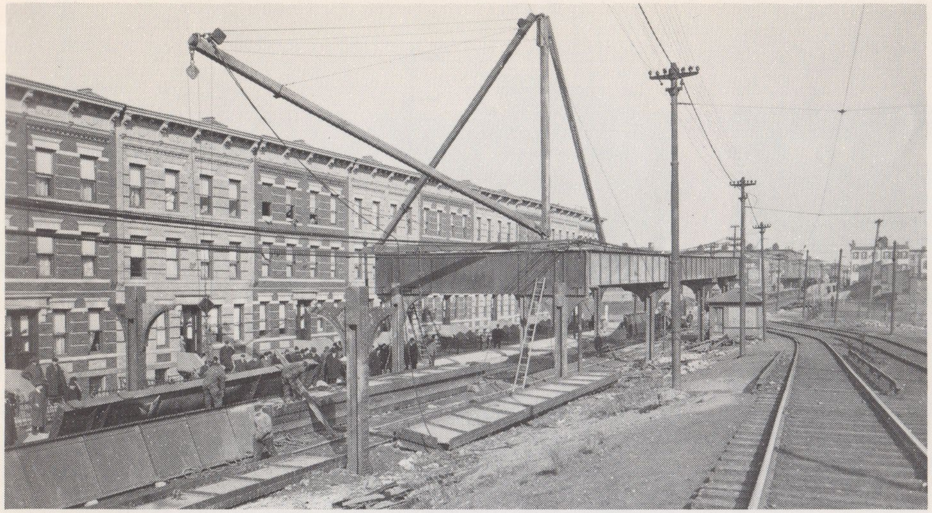
* NO EASTBOUND PLATFORM ON LEXINGTON AVE. LINE AT MYRTLE AND GRAND AVENUES.

CANARSIE TERMINAL


RAPID TRANSIT
BROOKLYN RAPID TRANSIT
808
808
BROOKLYN RAPID TRANSIT
748
LUTHERAN LINE MARCH 12 1914




WALBER'S
CAFE
Jac. Ruppert

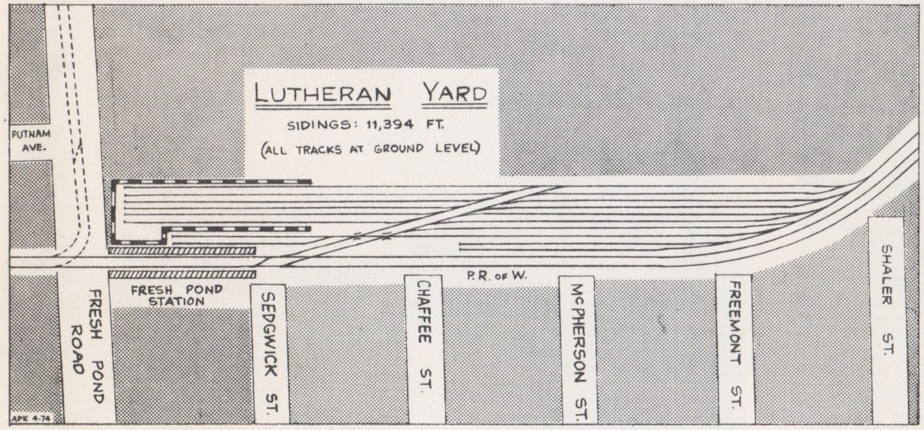


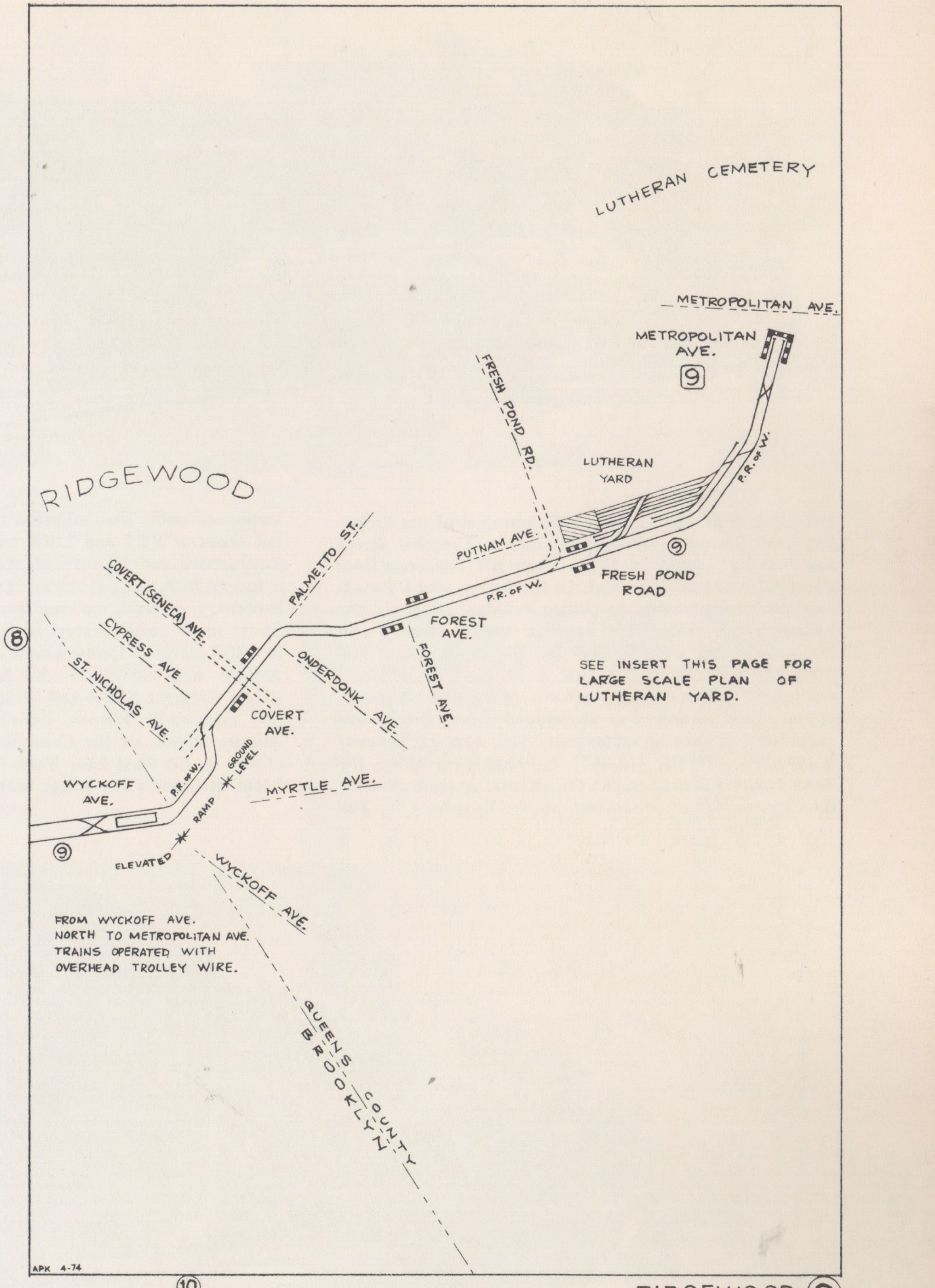
OPPOSITE PAGE–

TOP: A close-up view of three center-door el cars in Lutheran Yard in 1914. These open-platform cars were originally constructed wihout center doors, but extremely slow loading and unloading, particularly at the overcrowded Park Row terminal, made their installation a necessity. BOTTOM LEFT: Looking toward Metropolitan Avenue along the Myrtle Avenue line from Fresh Pond Road station, showing Lutheran Yard. Between 1910 and 1914 high-level platforms had been installed, and in 1915 the surface level station was replaced by one on an elevated structure along the same right-of-way. BOTTOM RIGHT: By 1914 the Forest Avenue station of the Myrtle Avenue line had been converted from low-level side platforms to a high-level center platform. At that time construction of a new Forest Avenue station on an elevated structure over the private right-of-way was in progress.

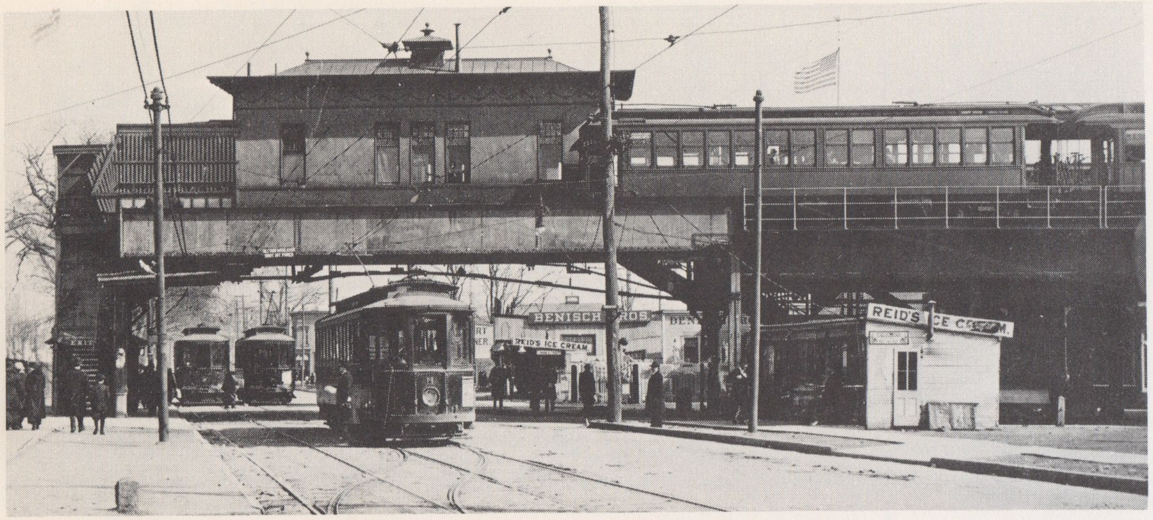
THIS PAGE–

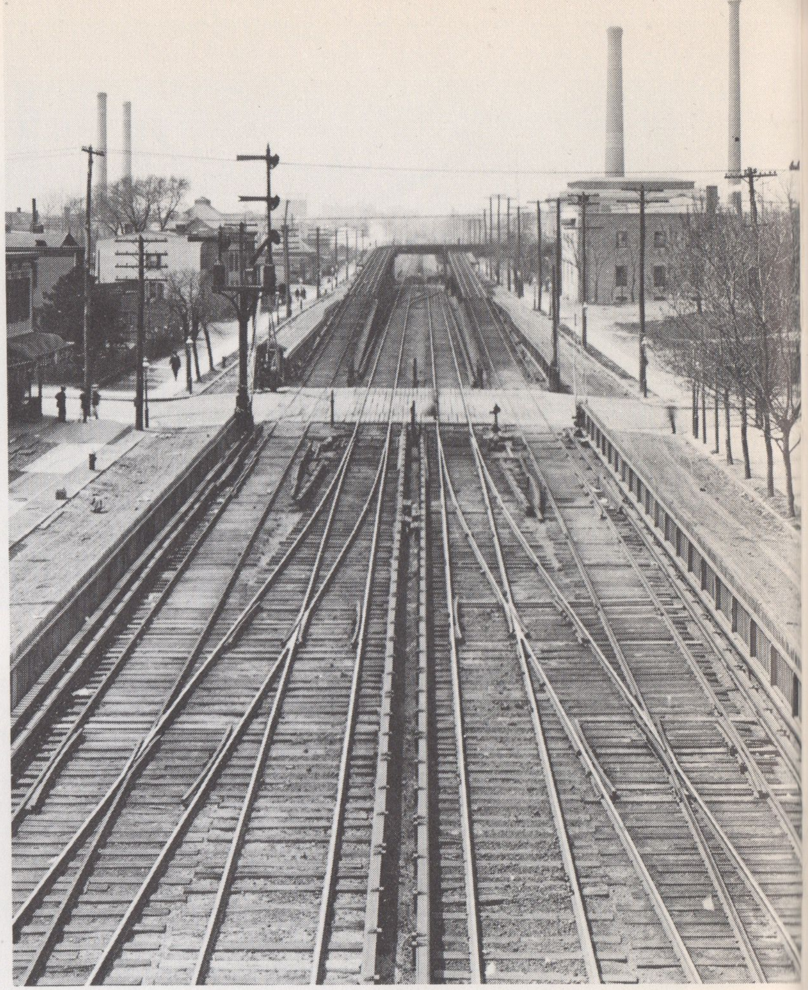
TOP: During 1914 construction was underway to place the Myrtle Avenue line onto an elevated structure northward from the Brooklyn-Queens border. Until the structure was completed in 1915 el cars changed from third rail to overhead power and operated via the ramp at right from Wyckoff Avenue onto surface private right-of-way. *all courtesy of Robert L. Presbrey*





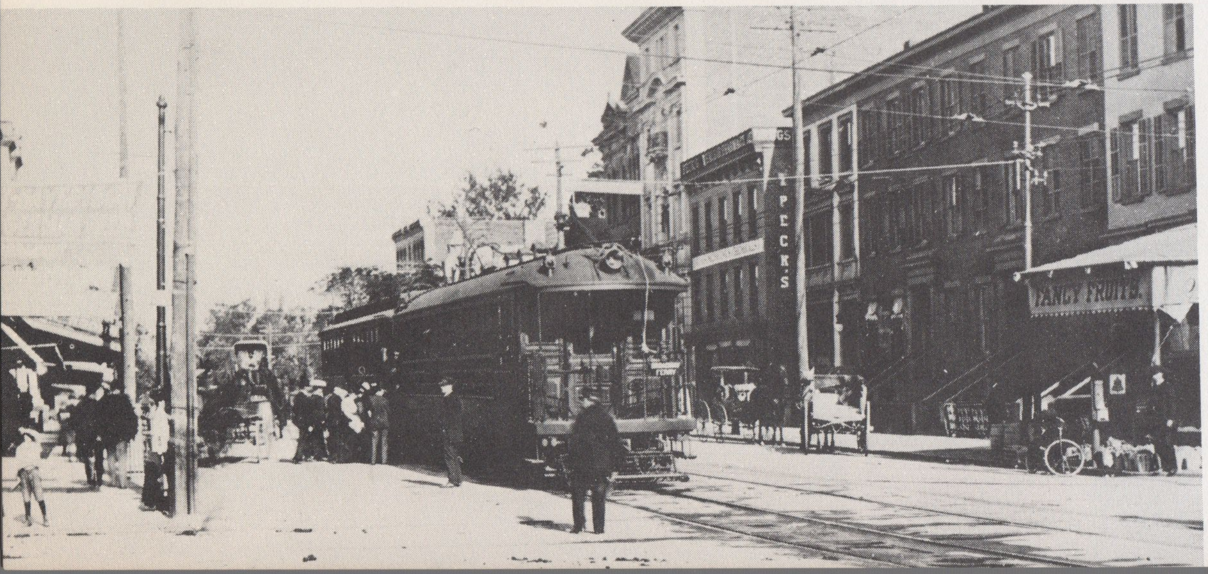
RIDGEWOOD ⑨

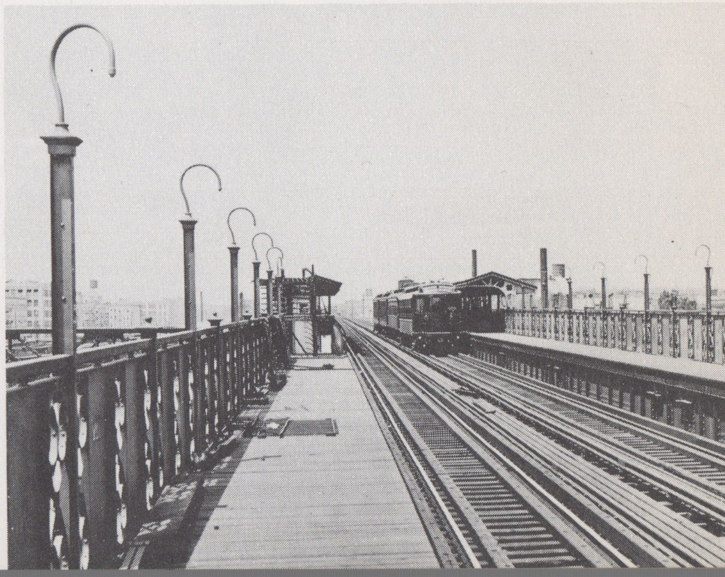


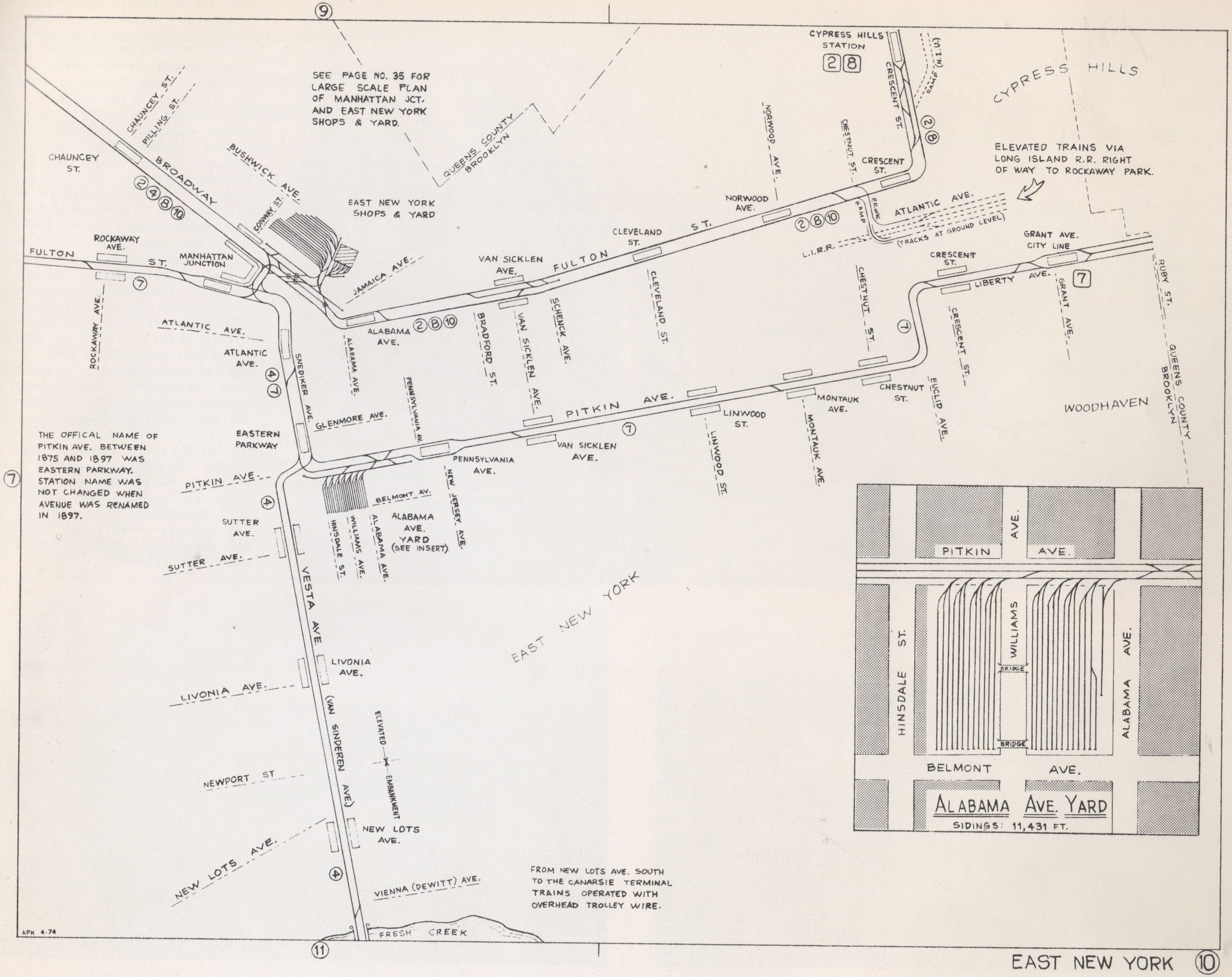


UPPER LEFT: The Cypress Hills terminal of the Broadway and Lexington Avenue el lines at Crescent Street and Jamaica Avenue in 1915. Three BRT streetcar lines also terminated at this point. In the foreground a Broadway car changes ends to return to Manhattan via the Williamsburgh Bridge. The Jamaica Avenue streetcars in the background were feeders for the rapid transit line from 168th Street in Queens, while the Fulton Street carline, not shown in the photo, operated underneath the el. This station was abandoned when the el was extended eastward to Jamaica in 1917. *courtesy Edward B. Watson*. **UPPER RIGHT:** Looking west along the Long Island Railroad tracks on Atlantic Avenue showing the Chestnut Street connection to the Broadway el. The stationary cams that adjusted the position of the third rail shoes of BRT and LIRR trains in New York-Rockaway service can be seen at the bottom of the ramps. *courtesy Robert L. Presbrey*. **LOWER LEFT:** A two-car Broadway el train on Jamaica Avenue at Washington Street (now 160th Street) in Queens. For a brief period in 1903 elevated trains shared the pavement of Jamaica Avenue with streetcars and horse-drawn vehicles between Crescent Street and 168th Street, Jamaica. *courtesy Edward B. Watson*. **LOWER RIGHT:** The Livonia Avenue station of the Canarsie line in 1918. Alongside at left is the East New York freight yard of the Long Island Railroad's Bay Ridge branch.

courtesy Robert L. Presbrey







SEE PAGE NO. 35 FOR LARGE SCALE PLAN OF MANHATTAN JCT. AND EAST NEW YORK SHOPS & YARD.

ELEVATED TRAINS VIA LONG ISLAND R.R. RIGHT OF WAY TO ROCKAWAY PARK.

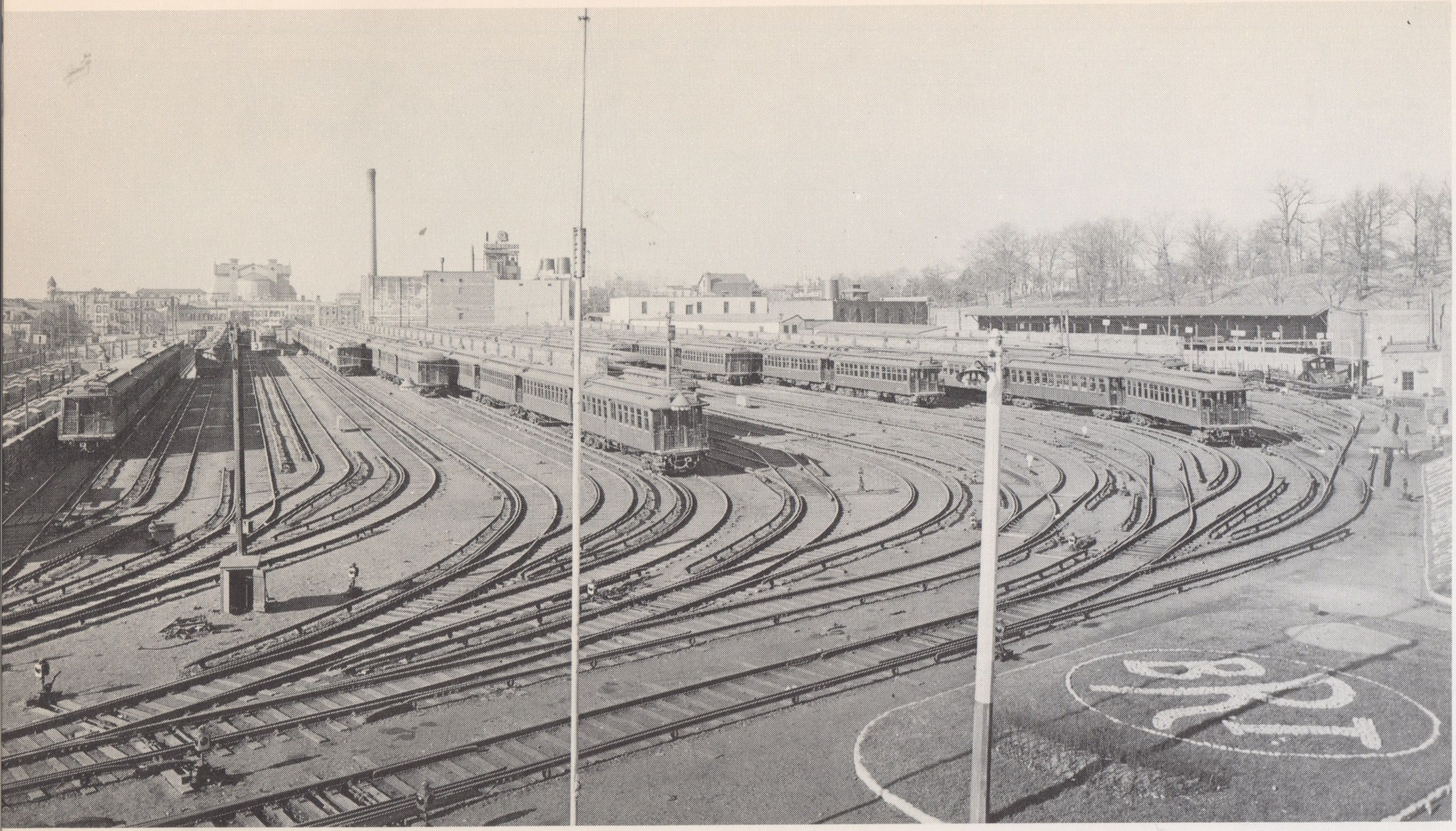
THE OFFICAL NAME OF PITKIN AVE. BETWEEN 1875 AND 1897 WAS EASTERN PARKWAY. STATION NAME WAS NOT CHANGED WHEN AVENUE WAS RENAMED IN 1897.

FROM NEW LOTS AVE. SOUTH TO THE CANARSIE TERMINAL TRAINS OPERATED WITH OVERHEAD TROLLEY WIRE.

ALABAMA AVE. YARD

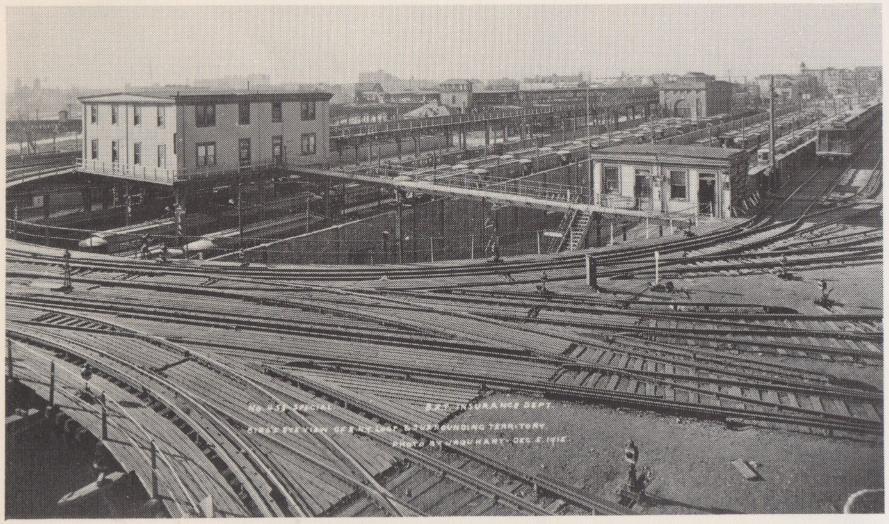
SIDINGS: 11,431 FT.

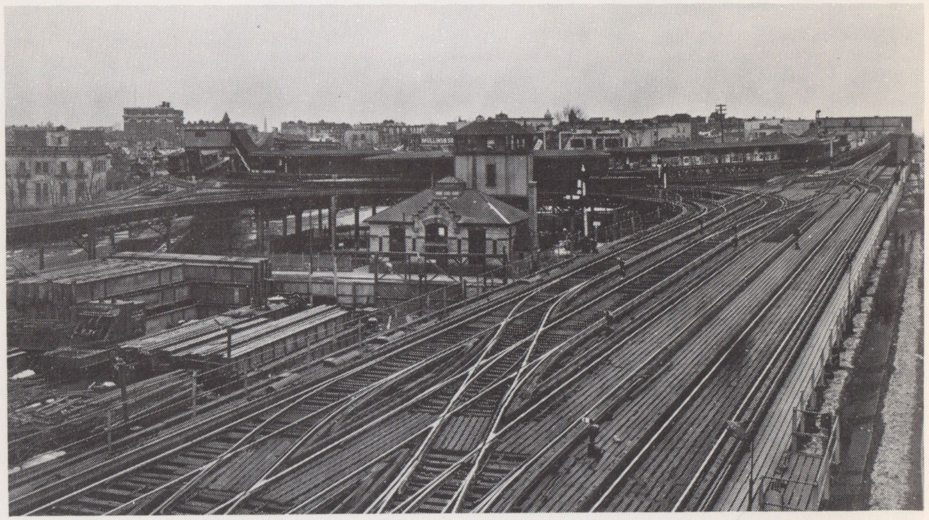
APK 4-74

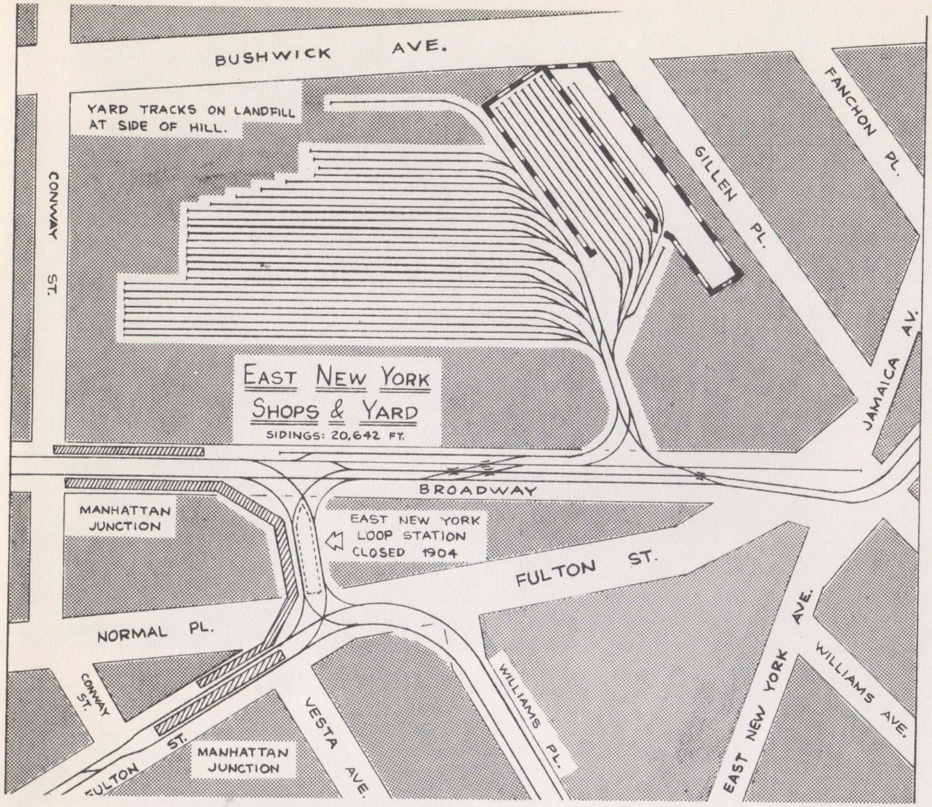


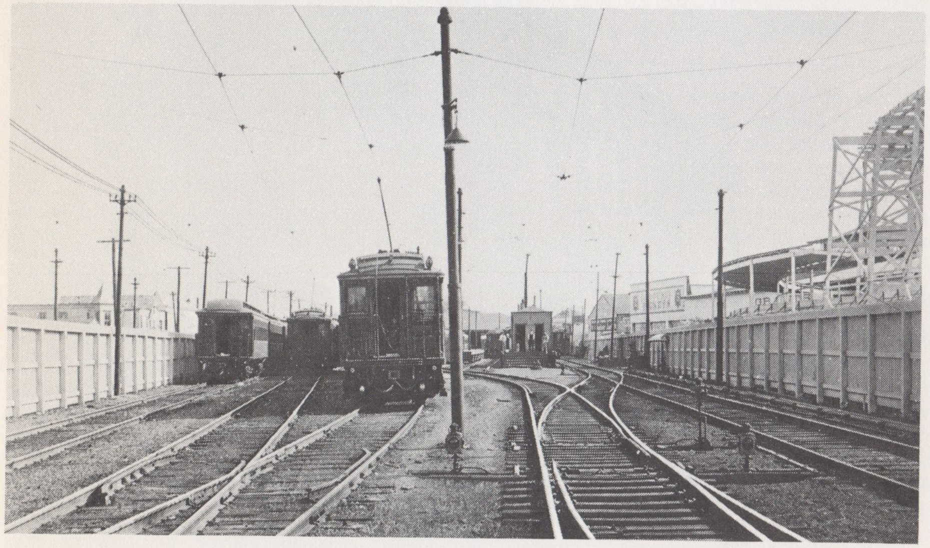
The Fulton Street, Broadway and Canarsie lines connected at Manhattan Junction, a sprawling elevated complex that also included the East New York shops and yards. UPPER LEFT: An assortment of different types of elevated cars are shown in the 27-track East New York car yard in 1915. The BRT proudly displayed its stylized insignia on the spotless property. *courtesy Donald W. Harold*. LOWER LEFT: The entrance to the elevated yard in 1915. The property was shared with BRT streetcars, which are shown in their section at center and left. Directly to the left, connecting with the lead tracks, is the Broadway elevated. In the background, the connecting trackage to the Fulton Street and Canarsie lines can be seen. *courtesy Donald W. Harold*. LOWER RIGHT: Manhattan Junction in 1916, at the start of the reconstruction which eliminated the grade crossings and developed into a massive elevated complex. The view is looking westward along the tracks of the Broadway line, with the Fulton Street el at the left. *courtesy Edward B. Watson*. OPPOSITE PAGE: Canarsie terminal on October 19, 1915. The terminal consisted of two platforms serving three tracks, with a small yard alongside. By 1917 through service from Manhattan was cut back to Rockaway Parkway, with el cars providing shuttle service for the remaining distance.

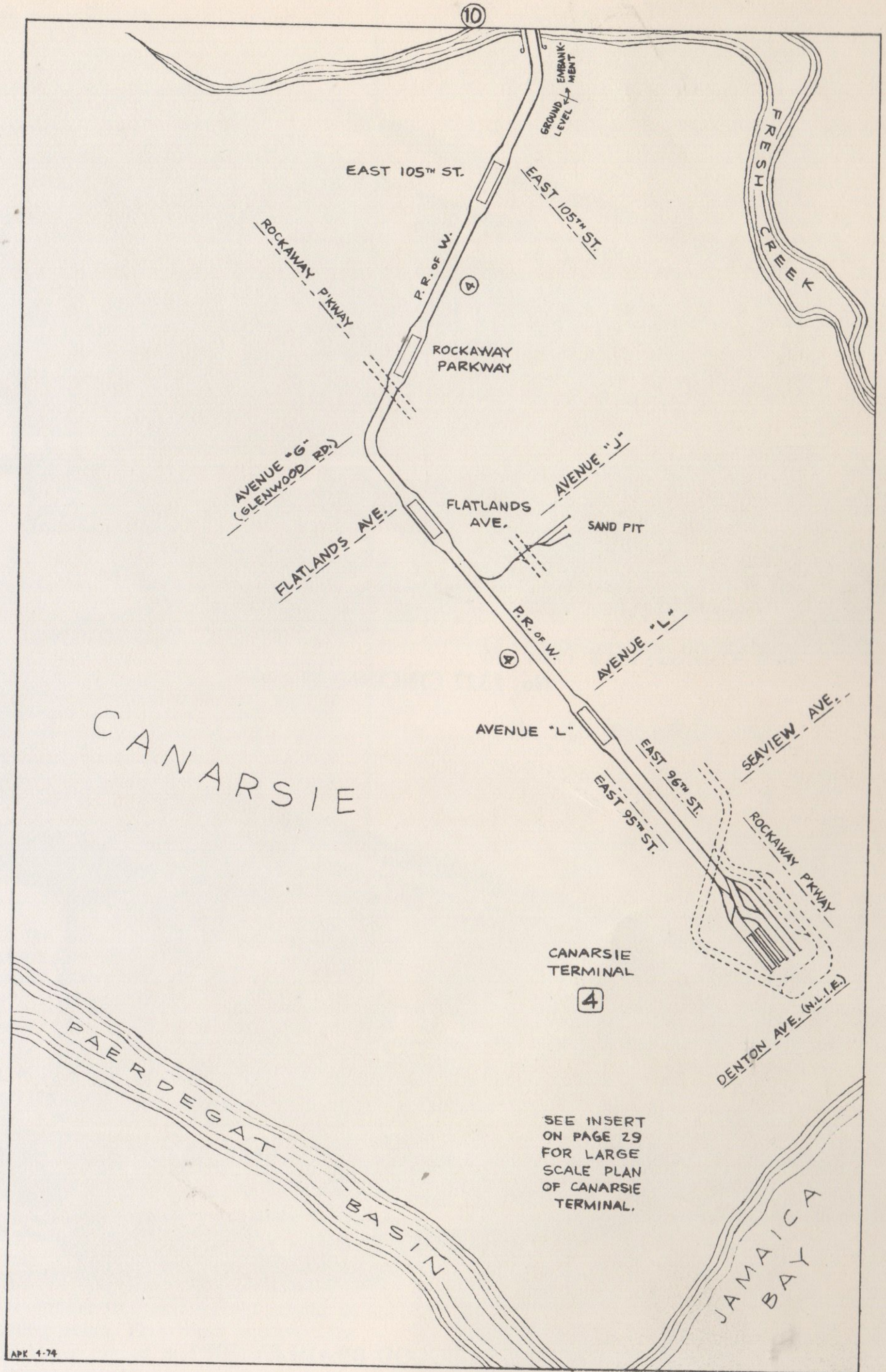
courtesy George V. Arnoux

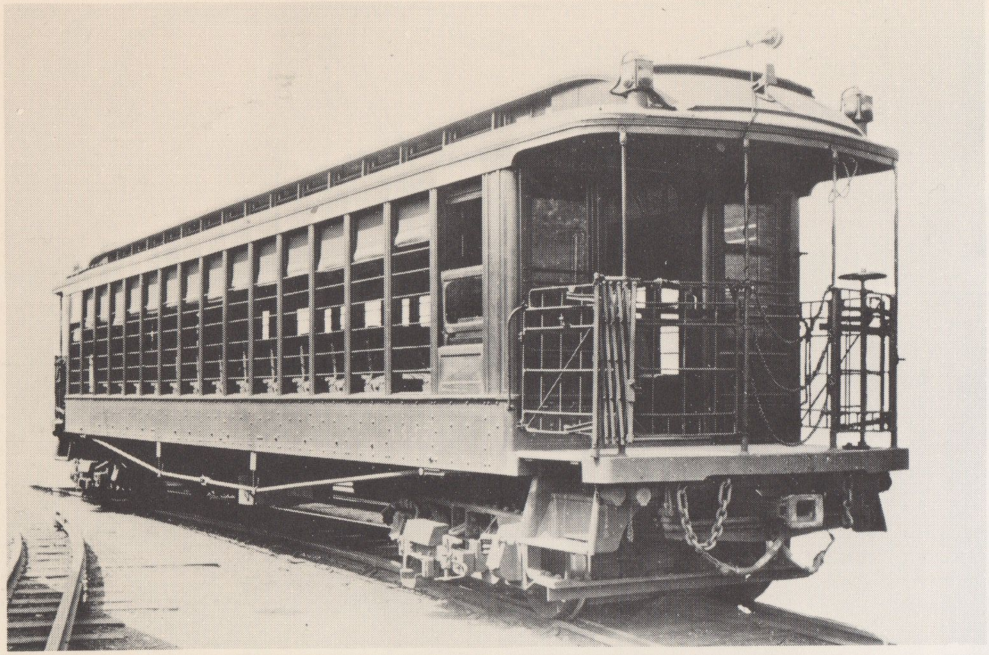

No. 437 Special
B.R.T. Insurance Dept.
Birds Eye View of E.N.Y. Loop & Surrounding Territory
Photo by Urquhart - Dec 5 1915



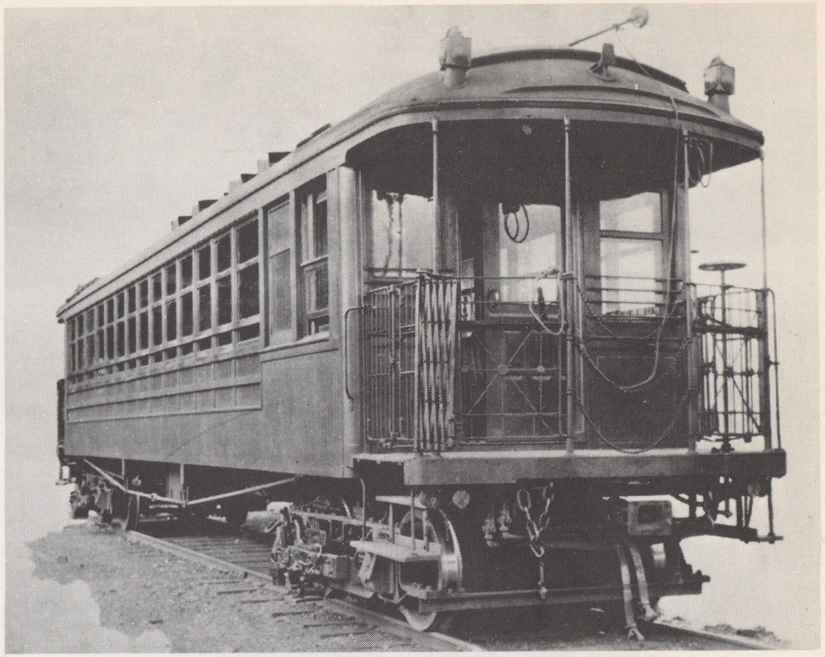

BUSHWICK AVE.
YARD TRACKS ON LANDFILL AT SIDE OF HILL.
CONWAY ST.
FANCHON PL.
GILLEN PL.
JAMAICA AV.
EAST NEW YORK SHOPS & YARD
SIDINGS: 20,642 FT.
BROADWAY
MANHATTAN JUNCTION
EAST NEW YORK LOOP STATION CLOSED 1904
FULTON ST.
NORMAL PL.
CONWAY ST.
FULTON ST.
MANHATTAN JUNCTION
VESTA AVE.
WILLIAMS PL.
EAST NEW YORK AVE.
WILLIAMS AVE.



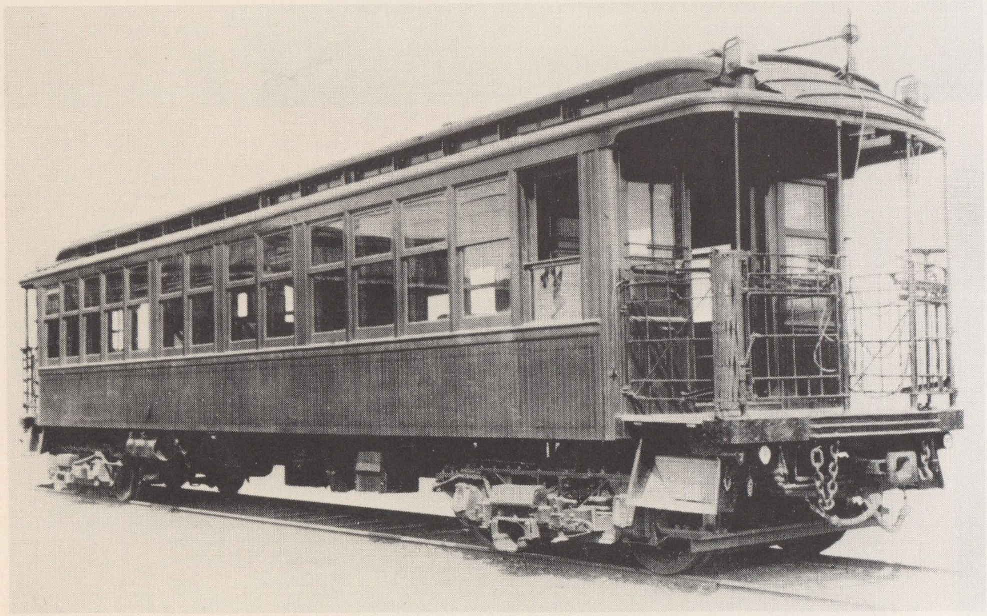

10
EMBANKMENT
GROUND LEVEL
FRESH CREEK
EAST 105TH ST.
EAST 105TH ST.
ROCKAWAY P'KWAY
P.R. OF W.
4
ROCKAWAY PARKWAY
AVENUE "G" (GLENWOOD RD.)
AVENUE "J"
FLATLANDS AVE.
FLATLANDS AVE.
SAND PIT
P.R. OF W.
4
AVENUE "L"
AVENUE "L"
SEAVIEW AVE.
CANARSIE
EAST 96TH ST.
EAST 95TH ST.
ROCKAWAY P'KWAY
CANARSIE TERMINAL
4
DENTON AVE. (N.L.I.E.)
PAERDEGAT BASIN
SEE INSERT ON PAGE 29 FOR LARGE SCALE PLAN OF CANARSIE TERMINAL.
JAMAICA BAY
APK 4-74



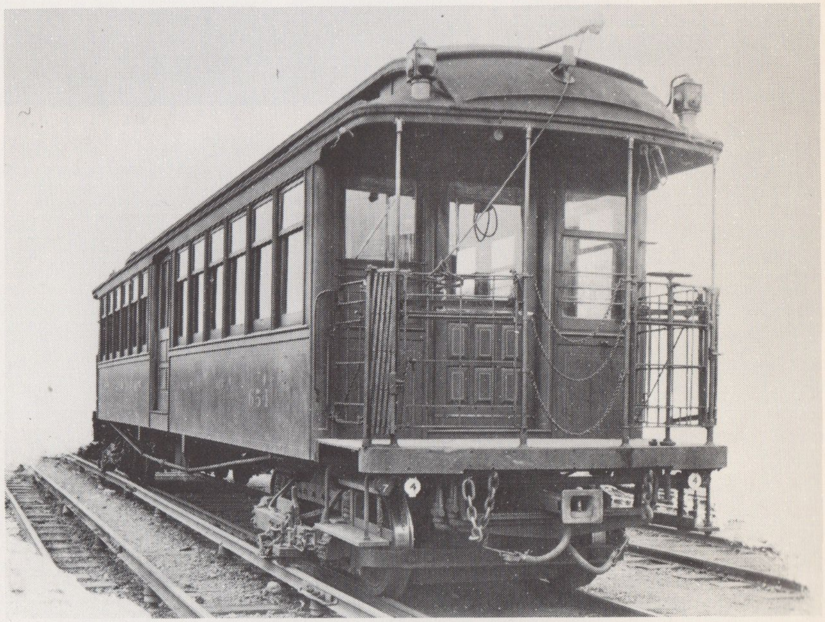
No. 1327 CINCINNATI 1905



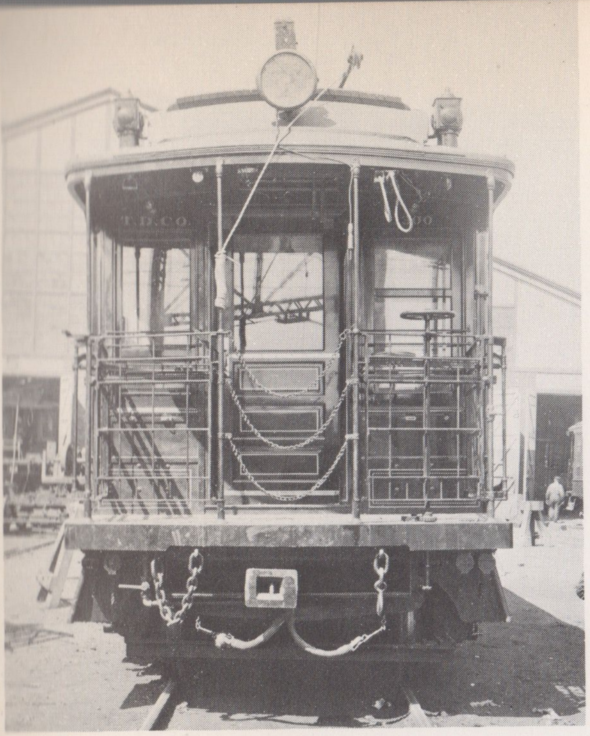
No. 1104 STEPHENSON 1902



No. 1215 OSGOOD BRADLEY 1903

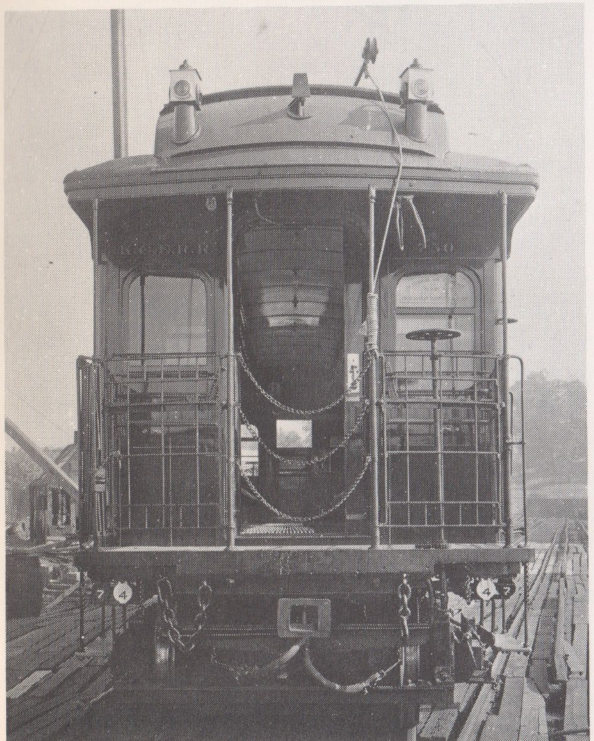


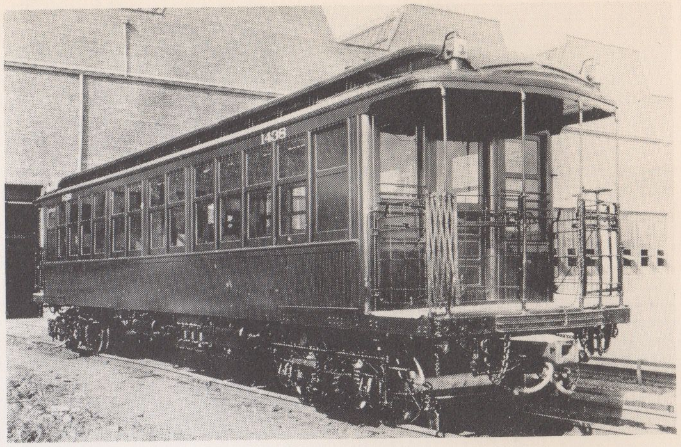
No. 654 JEWETT 1901



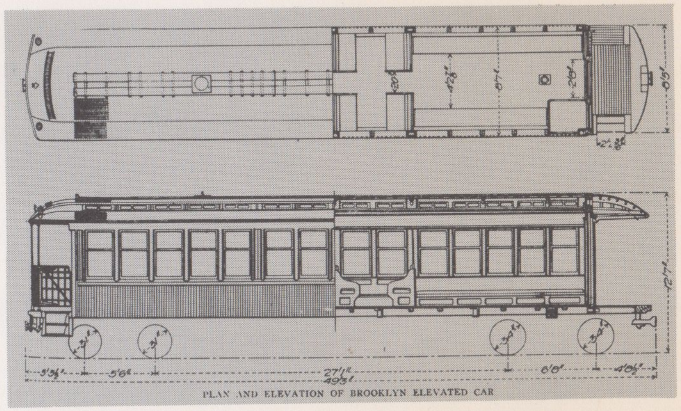
No. 1300 CINCINNATI 1905

No. 750 PULLMAN 1888



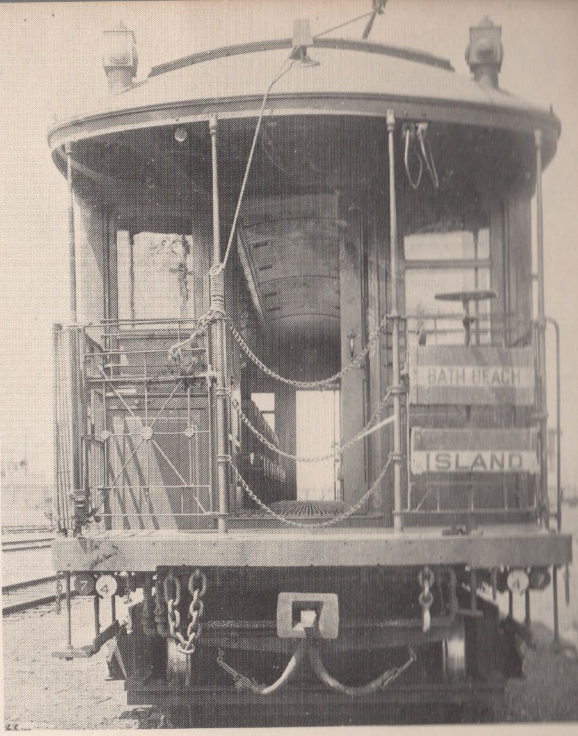


No. 1438 JEWETT 1907



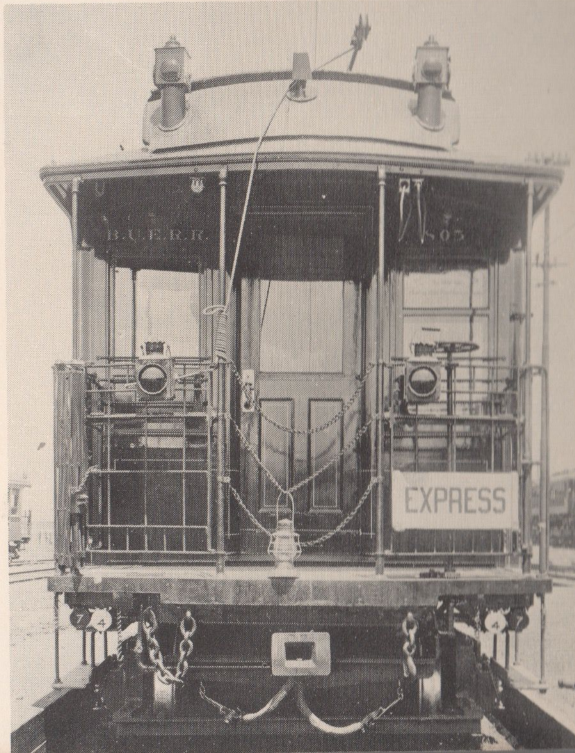
PLAN AND ELEVATION OF BROOKLYN ELEVATED CAR

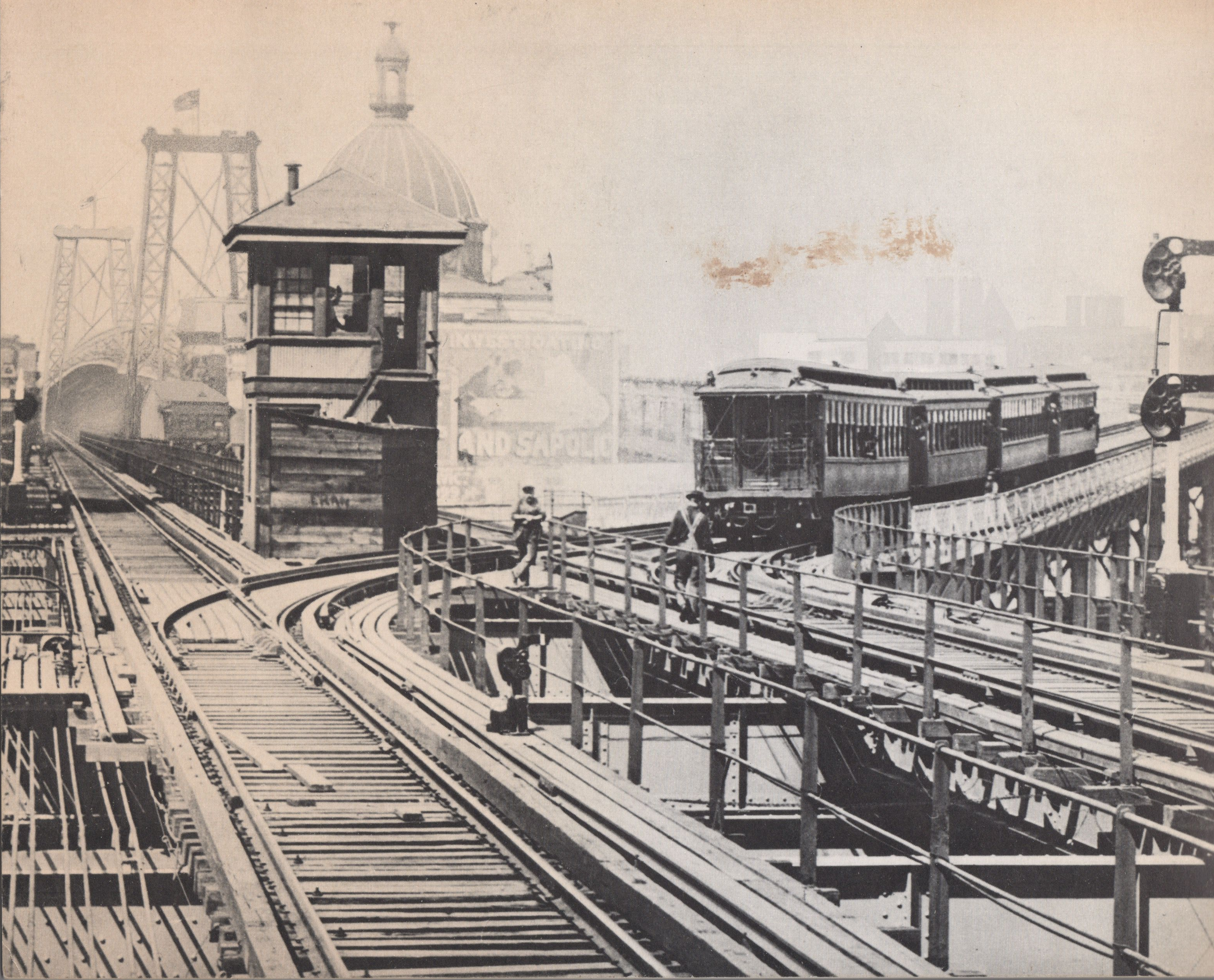
The wooden electric cars that plied the Brooklyn elevated system were commonly grouped together and referred to as the "BU cars," after the initials of the Brooklyn Union Elevated Railroad Company. They hardly could have been considered a single class of cars, however, because there were significant differences among them. Over 850 elevated cars were built between 1884 and 1907. Many of the older cars, constructed as steam trailers, were electrified in the years surrounding the turn of the century. They were manufactured by the masters of the car building industry—Jewett, Osgood Bradley, Wason, Brill, Laconia, Stephenson and Pullman, among others. While all were constructed of wood and had open platforms with gates for entry and exit, some cars were fitted with center doors. Most cars had monitor roofs, but one series had curved back roofs. The 1000- and 1300-series were convertibles, their side panels removable during the hot weather in order to catch the summer breezes. By 1958 only the Myrtle Avenue line still used BU cars. The other lines were either torn down or rebuilt for steel subway cars. In that year the gate cars were replaced by Q-series cars, which were former BUs, extensively rebuilt in 1938 with enclosed vestibules and sliding doors. They were in service for only eleven more years, as in 1969 the lower part of the Myrtle Avenue el was abandoned and the last wooden el cars retired.



No. 1017 STEPHENSON 1902

No. 805 PULLMAN 1884




AND SAPOLIO